The Role of Emotion Regulation and Coping in Binge Eating Disorder

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CLINICAL RESEARCH PORTFOLIO
VOLUME I
(VOLUME II bound separately)

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BA (Hons), MSc

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Chapter 1: Systematic Review

The relationship between therapeutic alliance and treatment outcomes for individuals with eating disorders.

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Abstract

Background: Research suggests a relationship between therapeutic alliance and treatment outcomes. No review of this relationship has been undertaken in the area of eating disorders.

Objective: To systematically review the quantitative literature relating to therapeutic alliance and treatment outcomes in eating disorder. To answer: Does therapeutic alliance predict outcome in psychological interventions for eating disorder?

Method: A systematic search of the literature was undertaken.

Results and Conclusion: Six papers met criteria and were rated for methodological quality. Three out of six studies found a relationship between therapeutic alliance and treatment outcome. Due to poor methodological quality, further research is required to draw any firm conclusion about the relationship between therapeutic alliance and outcome in eating disorders.

Key Words: *Eating Disorder; Bulimia; Anorexia; Therapeutic Alliance; Treatment outcomes; Systematic review.*

Introduction

Eating Disorders (ED): Approximately one in 250 females and one in every 2000 males meet criteria for Anorexia Nervosa (AN), an ED characterized by fear of gaining weight and calorie restriction resulting in very low body weight. Around five times as many experience Bulimia Nervosa (BN), an ED characterised by episodes of binge eating and compensatory purging. Atypical EDs are more prevalent but often go unrecognised (National Institute for Clinical Excellence: NICE, 2004). This category includes Binge Eating Disorder (BED), which is an ED associated with episodes of binge eating in the absence of purging.

Current guidance (NICE, 2004) suggests psychological treatment be provided in the management of ED. Recommended psychological interventions for AN are: Cognitive Analytic Therapy (CAT); Interpersonal Therapy (IPT); Cognitive Behaviour Therapy (CBT); focal psychodynamic psychotherapy; and family intervention. In BN the recommended interventions are evidence-based self-help and CBT. Where CBT is not appropriate, IPT should be offered. In the case of BED: self-help; CBT; IPT and Dialectical Behaviour Therapy (DBT) are recommended.

Psychological interventions for ED appear to be limited; for example, current manualised CBT approaches to the treatment of BN are effective for only 40-50% of individuals (Wilson et al., 2002). In a recent systematic review of treatments for BED Brownley et al. (2007) found moderate evidence to support pharmacological interventions and behavioural interventions, and weak evidence in support of all other interventions. In a review of psychological interventions for AN, Kaplan (2002) concluded that there is mixed evidence with regard to efficacy of psychological interventions in AN. In order to improve the effectiveness of psychological treatments in ED, research must focus on developing a greater understanding of the active elements of treatments.

Therapeutic Alliance (TA): The treatment of mental health disorders has many different theoretical schools. Much research focuses on the application and efficacy of different approaches. It has, however, been suggested that the TA is a key predictor of outcomes, regardless of therapeutic approach (Martin et al., 2000). Rogers (1965) described the TA as encompassing the attitudes of the therapist to working with the client, for example, how genuine the relationship is and the ability of the therapist to be empathetic and accepting of the client. The TA or relationship, sometimes known as the working or helping alliance, is

thought to have three key components: collaboration between client and therapist; emotional aspects of the relationship; agreement between the client and therapist with regard to the goals of treatment and the ways of achieving these (Martin et al., 2000). TA provides an umbrella term to describe the interpersonal processes occurring within the context of psychological treatment. These processes are thought of as occurring in parallel to, but independently of, the specific techniques utilised within any one treatment approach (Elvins and Green, 2008). In the current economic climate there is pressure to provide therapeutic interventions which are both time limited and manualised (Yalom, 2003). There is a danger that in doing so, the individualised nature of psychological intervention may be lost, potentially impacting negatively on client engagement and ultimately on the efficacy of treatment (Yalom, 2003).

Martin et al. (2000) investigated the aspects of TA, which are important in terms of treatment outcomes. A total of 79 papers were reviewed across a broad range of mental health disorders including depression, bereavement and ED. The results of this meta-analysis suggested that the overall effect size relating to the impact of TA on treatment outcomes was moderate, at 0.22. The review identified only one paper that explicitly investigated the relationship between TA and treatment outcomes in an ED population. This study, carried out by Gallop et al. (1994), considered patients with a diagnosis of AN or BN and found that patient perceptions of the TA in the early stages of therapy was related to patients exiting the study before treatment completion. They therefore concluded that TA is important for engagement in therapy (Gallop et al., 1994). Elvins and Green (2008) agree that the TA is a key variable in explaining treatment outcome. The relevance of the TA is therefore clear. If a positive TA is related to engagement in therapy and outcomes of therapy, then the alliance must be attended to throughout intervention. Comparatively few papers have focused on the relationship between TA and outcomes of psychological interventions in ED (Hartmann et al., 2010). No review of this relationship in an ED population was identified by a search of the literature.

Objectives: This review aims to evaluate the available literature related to the relationship between TA and the outcomes of psychological treatments for ED. A further aim was to answer the question: Does TA predict psychological treatment outcomes for people with an ED?

Method

Search strategy (see appendix 1.1)**:** Databases were searched using key word or topic searches. The following databases were searched; PsycINFO, Ovid databases (EMBASE and medline), Web of Science and The Cochrane Library. The following search terms were used; ('eating disorder' OR 'binge eating' OR 'bulimia' OR 'Anorexia') AND ('TA' OR 'therapeutic relationship' OR 'working alliance'). Boolean terms and truncation were used to maximize search results. Searches were limited to human trials and English language where these options were available. Reference lists of journal articles identified were hand searched to identify further relevant papers. See Table 1 for inclusion criteria.

INSERT TABLE 1 HERE

Assessment of Methodological quality: The Clinical Trials Assessment Measure (CTAM: Tarrier and Wykes, 2004) was employed to assess the quality of included studies (see appendix 1.2). This tool is based on the Consolidated Standards of Reporting Trials (CONSORT) guidelines (Schulz et al., 2010) for reporting of clinical trials. The CTAM covers six areas of trial design with a total of 15 items. Trials can be awarded a maximum of 100 points. Studies were arbitrarily categorized according to their quality rating score; very poor (0 – 25); poor (26 – 50); acceptable (51 – 75) or good (76-100). The CTAM has been shown to demonstrate good inter-rater reliability (Cronbach's α= 0.96) and adequate internal consistency (Cronbach's α = 0.69) (Tarrier & Wykes, 2004). As a means of examining the inter-rater reliability, a sample of the papers (66.67%) were independently rated by a Trainee Clinical Psychologist. There was a 90% agreement in scores. Differences were resolved through discussion with 100% agreement reached.

Effect Size Analysis: Where possible, data was extracted to allow effect sizes to be presented or calculated. These are reported in terms of Pearson's r or Spearman's rho, depending on the type of data. These correlation coefficients utilise the same formula and are therefore comparable (Field, 2009). This provides a measure of the strength of the relationship between TA and treatment outcome, with 0.2-0.5 considered small, 0.5- 0.8 medium and greater than 0.8 large (Ferguson, 2009).

Results

Study Selection and Characteristics: A search of the literature identified 389 studies. Figure one illustrates the process by which studies were excluded and at which stage. Six papers were found to be eligible for inclusion.

INSERT FIGURE 1 HERE

Sample Characteristics: Table 2 provides demographic information for the studies included within this review. Four of the six papers included within this review represent secondary analysis of the data from treatment outcome studies. Loeb et al. (2005) and Wilson et al. (2002) contain secondary analysis of the original article by Agras et al. (2000). Wilson et al. (1999) represents a secondary analysis of the data from Walsh et al. (1997) and Hartmann et al. (2010) contains a secondary analysis of data gathered by Zeeck et al. (2009). As necessary, original reports were referred to. These studies had a total of 573 participants (Wilson et al., 2002 and Loeb et al., 2005 report on the same sample and thus their total N is included only once). Of the total population under investigation, 88.66% had a diagnosis of BN; the remainder had a diagnosis of AN. The mean age of participants was 26.73 years and 99.3% of the participants were female.

INSERT TABLE 2 HERE

Study Design: A variety of methodological designs were employed across the studies reviewed. Brown et al. (2013) employed a longitudinal case series design. The remaining studies reported data from randomized controlled trials.

Measurement of TA: A variety of measures of TA were employed in the papers reviewed. Table 3 provides information regarding each measure.

INSERT TABLE 3 HERE

Primary outcome measurement: A number of primary outcome measures were reported in the papers reviewed; table 4 provides a summary of these.

INSERT TABLE 4 HERE

Quality Ratings: Papers were systematically reviewed in terms of methodological quality. The papers were scored using the CTAM (Tarrier and Wykes, 2004). No paper received the maximum number of points available on the quality rating scale (see table 5), suggesting that research in this area can be improved. The highest score given was 59/100 (Loeb et al., 2005) with the remaining papers scoring between 29 and 53 (mean 43.83).

INSERT TABLE 5 HERE

A distinction was drawn between two papers that were rated as acceptable in methodological quality (Wilson et al., 1999; Loeb et al., 2005) and the remaining four studies (Brown et al., 2013; Hartmann et al., 2010; Wilson et al., 2002 and Treasure et al., 1999), which were rated as poor. The rationale for these ratings will be discussed below:

The paper by Loeb et al. (2005) included independent ratings of TA; this was reflected in the score attributed to the paper. None of the papers rated as poor quality included independent assessment of TA nor did Wilson et al. (1999). The papers rated as acceptable (Loeb et al., 2005 and Wilson et al., 1999) included a measure of treatment adherence, with only one of the papers rated as poor quality measuring this (Brown et al., 2013). It is important to note that the difference between the papers rated as acceptable and those rated as poor was not large. This applies especially to the papers by Wilson et al. (2002) and Treasure et al. (1999), whose scores were just below the cut-off for acceptability. These papers were both found to include adequate descriptions of their randomisation procedures. The papers by Brown et al. (2013) and Hartmann et al. (2010) had scores that were firmly within the poor range of quality. In the case of Brown et al. (2013) with only one treatment group, randomisation was not possible; therefore no marks could be awarded for questions three, four and five.

A major limitation of the studies reviewed relates to their failure to limit potential sources of bias in their randomisation and assessment processes. In no study was randomization reported

to have been undertaken independently. Assessments were only undertaken independently in the study by Loeb et al. (2005). No paper reported assessment to have been carried out by blind assessors. These methodological failings are reflected in the scores assigned. Only one paper dealt with dropout by modelling its effects using logistic regression (Wilson et al., 1999). Also there was a failure across the papers to include adequate intention-to-treat analysis. This methodological weakness reduced the points awarded to the studies reviewed and signifies a potential source of bias.

Of the six papers reviewed, three (Wilson et al., 1999; Loeb et al., 2005 and Treasure et al., 1999) found a relationship between TA and treatment outcome. Wilson et al. (1999) found that score on the HRQ (Luborsky, 1984) predicted remission status in their overall sample, with greater TA being related to higher likelihood of remission. Squared semi-partial correlations indicated that TA contributed 2% to the overall variance ($r = 0.02$) representing a small effect size. Loeb et al. (2005) reported the results of a regression analysis showing that TA, without controlling for prior symptom change, did not predict outcome in either the CBT or IPT groups. Therapist contribution to the TA, measured at session six, was found to predict outcome, contributing 2% of the unique variance ($r = 0.02$ $p<0.05$) thus representing a small effect. This contribution was less than that of the treatment condition (7.4%). Treasure et al. (1999) reported a correlation analysis, which showed therapist ratings of bond and goal, as measured by the WAI, not to be related to symptom change. Therapist ratings of task agreement, however, were found to be positively correlated with improvements in binge eating ($\rho=0.32$, $p<0.05$) and vomiting ($\rho= 0.32$, $p<0.05$) showing small effect sizes. Patient ratings of goal were significantly correlated with improvements in binge eating ($\rho=0.34$, $p<0.05$) and vomiting ($\rho=0.36$, $p<0.05$), again signifying small effect sizes.

The remaining papers (Brown et al., 2013; Hartmann et al., 2010 and Wilson et al., 2002) found no relationship between TA and treatment outcome. Using Pearson's correlation, Brown et al. (2013) found that TA, as measured by the WAI-SV at session six, was not associated with later weight gain. The authors noted a trend of negative association between TA at session six and later weight gain. A cross-lagged correlation showed weight gain (from session six to treatment end) was associated with TA (overall WAI-SR score) at treatment end when controlling for TA at session six ($B = .3$, $\beta = .49$, $t [25] = 3.28$, $p<0.01$). They suggested that increases in weight are related to stronger subsequent alliance. Unfortunately,

insufficient data was provided to allow effect size to be calculated for this relationship and the authors did not respond to requests for data to allow this to be calculated. TA was not found to be related to treatment outcome in a multivariate analysis in the study by Hartmann et al. (2010). The authors conducted a bivariate logistic regression to rule out suppression effects. The result remained the same, with no significant relationship found between TA and outcome ($\chi^2 = 0.17$; *df* =41: p <0.68). Finally, Wilson et al. (2002) did not find TA to be a mediator of outcome and thus it was excluded from a regression model. This is in contrast to the findings of Loeb et al. (2005) who also investigated the sample from the original study carried out by Agras et al. (2000), but included a different method of rating TA.

Discussion

This review utilized the CTAM (Tarrier and Wykes, 2004) to assign quality ratings. It is of note that the CTAM was published in 2004; subsequently, the papers reviewed, which preceded the publication of the CTAM, could not use this to inform the design of their studies. Three of the six papers reviewed found no relationship between TA and treatment outcome. The remaining three papers suggest that there was a relationship between TA and outcome. Interestingly, two of the three papers, which found a relationship between TA and outcome, were rated as most methodologically robust (Wilson et al., 1999 and Loeb et al., 2005). Conversely two of the three, which found no relationship, were rated as having the poorest methodological rigour (Brown et al., 2013 and Hartmann et al., 2010). The two middle rated papers produced conflicting findings with Wilson et al. (2002) reporting no relationship and Treasure et al. (1999) suggesting a relationship was present.

None of the papers reviewed here was found to be of a high standard of methodological quality, with only two reaching an acceptable level. This has implications for our ability to draw any firm conclusions about the relationship between TA and treatment outcome in this population, based on the available literature. Two of the three papers that found a relationship between TA and outcome were rated as most methodologically sound. There were only six papers available to review, making it difficult to draw any conclusion about the pattern of findings as linked to quality ratings. The finding of some papers that there is not a relationship between TA and outcome is surprising given the publication of a number of reviews in other psychological disorders which have reported robust but modest relationship between TA and treatment outcomes (Horvath & Symonds, 1991; Martin et al., 2000)**.** Where it was possible to present effect size data a small effect size (as rated using Ferguson's

(2009) criteria) was consistently found. This would equate to a moderate effect size using Cohen's criteria. There does therefore appear to be a trend of agreement between this review and previous research.

In addition to methodological quality, a number of factors may have influenced the findings with regard to TA and outcomes; some of these issues are briefly discussed below.

Measurement of the TA: The papers reviewed used a variety of assessment measures of the TA. All of the measures used appear to have acceptable reliability and were recommended for use in assessing the relationship between TA and outcome by Martin et al. (2000). A systematic review by Elvins and Green (2008) draws attention to some limitations of these approaches. Specifically they highlight the lack of an overarching model of TA; resulting in numerous measures of TA that vary widely and are based on various theoretical stances. The authors also point out that there has been a lack of experimental research undertaken to determine the mechanisms underlying the TA or to investigate the parts that are most influential in prediction. A limitation of the WAI (Horvath and Greenberg, 1989) and the HAQ (Luborsky, 1985) is that their subscales do not mirror related conceptual factors.

Within the studies there was a mix of ratings by patient, therapist and observer. Kazdin and Nock (2003) suggest there are limitations to studies that couple patient or therapist ratings of both TA and outcome. They argue that this represents a potentially confounding factor in the analysis of studies, which are otherwise methodologically sound. Furthermore, there are other variables that may influence how patients view the TA, such as expectations or characteristics at outset of intervention (Constantino and Smith-Hansen 2008).

Outcome Measures: All of the papers included some self-report measure of ED pathology such as the EDE or frequency of bingeing and/or purging. The reliance on self-reports may introduce a possible source of under reporting, potentially influencing findings with regard to overall relationship between TA and outcome.

Timing of Assessments: It could be that changes in 'symptoms' may precede changes in the TA and that the relationship may be mediated in this way. For example, Loeb et al. (2005) found that TA did not predict outcome without controlling for the impact of prior symptom change. The authors note that they cannot discount the possibility that TA prior to session six

did not account for later changes in symptoms, as TA was not measured before this point. This mirrors the literature regarding TA in other populations, for example, Elvins and Green (2008) concluded that future research investigating the relationship between TA and treatment outcome will need to control for the effect of symptom change on the TA by utilising repeated measures designs to capture before and after symptom change ratings of the TA. This is an important factor potentially influencing the results of some of these papers.

Data Management: Whilst the analytic strategies employed within the studies reviewed here appear to be appropriate, a major issue affecting the robustness of their findings is their handling of dropout or the selection of sub-samples from larger data sets. This was reflected in the scores applied to each paper.

In the study carried out by Treasure et al. (1999), dropouts are discussed. They are defined within that study as participants who attended for assessment but either failed to attend treatment or began treatment but failed to attend for the initial four-week period. This study had a dropout rate of 33% in the MET group and 24% for the CBT group. The authors reported no significant differences between dropouts and completers. Only a marginally significant difference between the groups found was in terms of their completion of a stage of change measure. Though Treasure et al. (1999) discuss dropout rates and investigate potential differences between dropouts and treatment completers; they do not describe any method of managing this within their statistical analysis. Furthermore, it is of note that only 68 of a possible 128 participants completed the WAI at week four. The reason for this reduction in numbers is unclear and could relate to dropout, failure or refusal to complete measures. Therapists completed this measure for 68 patients. Again it is unclear why this was the case and is a significant limiting factor in interpreting the results of this study.

Wilson et al. (1999) did account for dropout in their sample in some analyses using logistic regression to model dropout, however, the actual attrition rates are not clarified. This has implications for the strength of their findings. In their investigation of the temporal relationship between TA and symptom change, the analysis carried out is not made explicit. Dropout data was not included and the authors state that this was established at the end of treatment; yet dropout would have been apparent at a variety of points during the study. This leads one to draw the conclusion that some recorded data may have been inappropriately excluded from the analysis.

Brown et al. (2013) used logistic regression to determine if clinical variables including working TA scores predicted early dropout. Twenty-one participants dropped out (32.3%) and the authors reported that data was missing at each time point, meaning that the sample size across analyses varied. All remaining analyses were conducted on treatment completers only. The authors define treatment non- completers as participants who dropped out without having recovered in less than 30 sessions. The implications of this exclusion seem problematic to say the least. As "drop-outs" could include individuals who undertook between one and 29 sessions, they are therefore unlikely to represent a homogeneous group. It would have been prudent to include some analysis of this group, as they were deemed as "not recovered". A comparison between this group and the "recovered" group could have provided potentially important insights into the differences in TA between them. The exclusion of "non-completers" may therefore represent a significant source of bias in the analysis of this study. The conclusion of the authors that TA was not associated with outcome in terms of weight gain may therefore not be a robust one.

In the original study by Agras et al. (2000) there were a total of 220 participants; however, in the secondary analyses carried out by Wilson et al. (2002), only participants for whom they had a full data set (N= 154 at post treatment and N = 129 at follow up) were included in the analyses. The paper by Loeb et al. (2005) is also based on the sample within Agras et al. (2000). Whilst Loeb et al. (2005) adequately describe attrition rates (30%); their analyses were based on a random subset of 81 treatment completers (N= 154). So although they adequately describe dropout, this is not controlled for in their analyses. They argue that this is appropriate as they aimed to complete a temporal analysis of the relationship between TA and outcome. The authors do however state that the decision to exclude dropouts means that their findings lack generalizability and can be applied only to similar samples of treatment completers

The study by Hartmann et al. (2010) did make reference to drop-out, stating, that of the original sample four participants could not be followed up and so their last data points were used to estimate missing data. They also report, however, that three patients were lost for subsequent analyses resulting in a reduced sample size. It therefore seems that they did not adequately manage dropout.

None of the studies reviewed included an adequate intention-to-treat (ITT) analysis. Yet,

White et al. (2012) argue that ITT is essential in minimising possible bias in analyses. According to ITT, all individuals randomized should be included in the analysis. Hollis and Campbell (1999) state that a 'complete-case' analysis, as used within some studies here, goes against the premise of ITT. They suggest that rather than analyse only complete data that researchers can instead impute missing data. Many of the papers reviewed included collection of data regarding symptom change and TA at repeated intervals; however, they undertake a 'complete-case' analysis, meaning that anyone, for whom data was missing at the final time point, was then excluded from the analyses. White et al. (2012), however, argue that exclusion of individuals for whom there is data available at more than one time point is inappropriate. Instead, a likelihood-based analysis of all available data should be utilized. This type of ITT analysis fits an appropriate statistical model to the available data. It makes the assumption that missing data are random. For repeated measures designs this means that missing data are assumed to be equally distributed to observed data dependant on baseline and follow-up variables (White et al., 2012).

None of the studies here report an adequate follow up of patients who dropped out of treatment; yet this can potentially have a limiting effect on the analyses completed. For example, this can result in analyses being underpowered (White et al., 2012). Furthermore, this reduces the likelihood of data being missing at random as there could be differences between those simply lost to follow up and those who exit treatment. These issues have important implications in terms of the interpretation of the findings of the studies reviewed here. The inclusion of completers only and the lack of ITT analysis could have a biasing influence on the findings of these studies.

Limitations.

In considering the results of this review it is important to highlight a number of potential limitations. Firstly, the selection of papers was subject to the application of inclusion and exclusion criteria. These criteria may limit the generalizability of the findings. For example, studies were English language; therefore there could be a cultural bias. Group and family interventions were excluded; therefore, no conclusions can be drawn about the relationship between TA and treatment outcomes in these modes of delivery. Secondly, no papers were identified which related to BED and only one to AN. This limits the generalizability of this review to these disorders. Thirdly, the exclusion of 'non-completers' in many of the papers reviewed here presents an important issue and limits our ability to draw conclusions about the

relationship between TA and outcomes.

Conclusion

This review has explored the link between TA and treatment outcomes in psychological interventions for ED. At this stage there is limited research in this area with only six papers identified by the current review. Many of the papers included were found to have poor methodological quality impacting on the strength of their findings. It is therefore important to view the findings of this review cautiously. Given the small number of studies reviewed here, it seems prudent to suggest that further well-designed research is required to draw any firm conclusion. It appears though that those studies, which were more methodologically robust, detected a relationship between TA and outcome. The highest quality papers reported small effect sizes, with a range of other variables contributing a greater amount to the overall variance in treatment outcomes. It therefore seems likely that the relationship between TA and treatment outcome is mediated by other factors such as symptom change and patient characteristics. Unfortunately, it was outwith the scope of the present review to consider all possible mediating factors. Further high quality research into the effective elements of treatment for ED are necessary to improve treatment outcomes.

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Table 1. Inclusion and Exclusion Criteria.

Inclusion Criteria	Exclusion Criteria
Measures TA	No measure of TA
Clinical outcome studies	Not outcome studies
Looks at relationship between TA and outcome	Does not look at relationship between TA and outcome
Participants have an eating disorder (Anorexia; Bulimia or Binge Eating Disorder)	Participants do not have an eating disorder
Psychotherapeutic intervention	Group or family treatment
>18 years old	< 18 years old
Quantitative studies	Qualitative studies

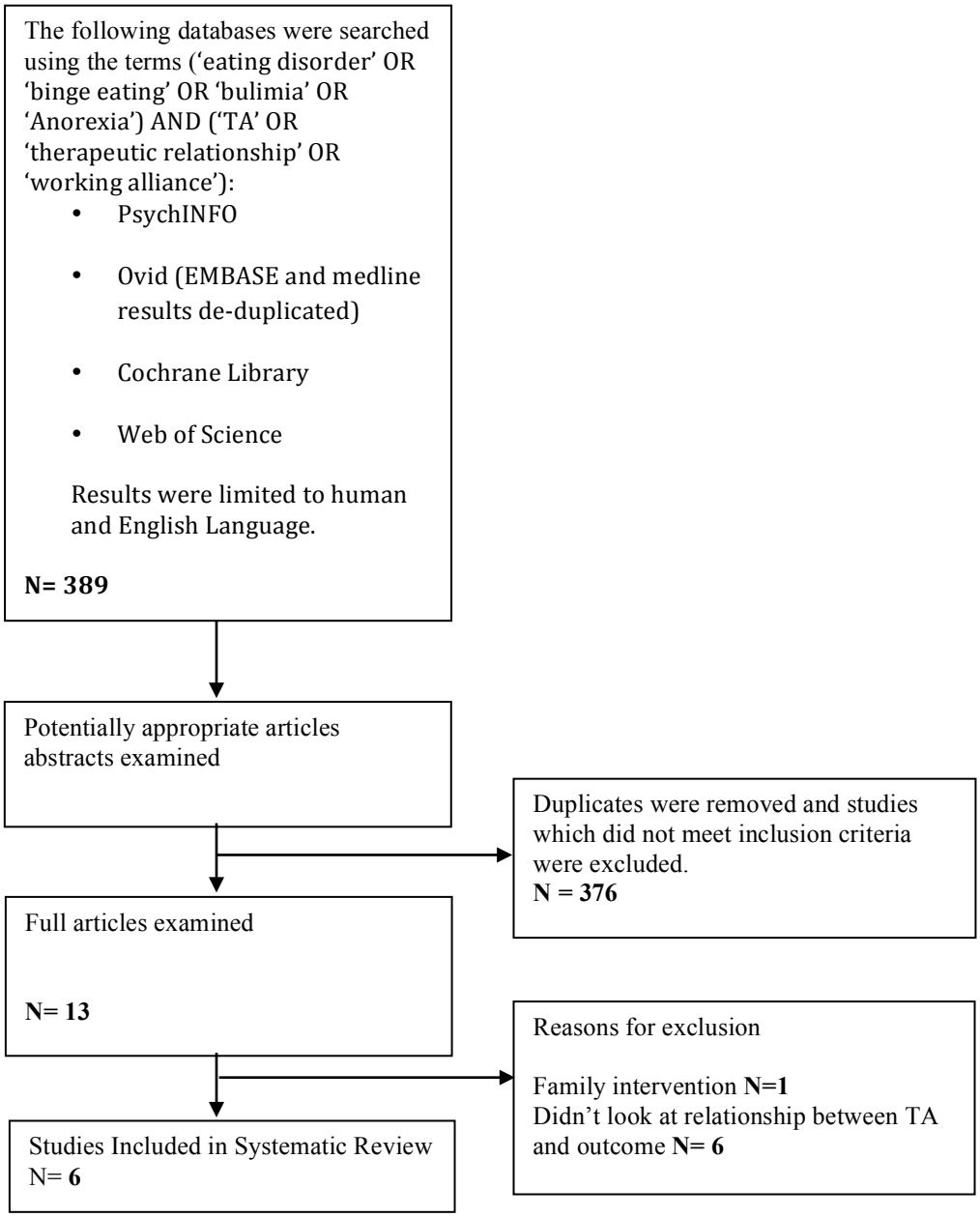

Figure 1. Flowchart of search and exclusions.

Table 2. Study Characteristics.

Authors	N	N male	N female	Mean Age	Ethnicity	Diagnoses	Treatment	Control	Geographic info	Service type
Brown et al. (2013)	65	1	64	25.7	81% Caucasian	Anorexia	CBT	No control	Urban and suburban London	Outpatient
Hartmann et al. (2010) [1] Zeeck et al., 2009	43	3	40	25.1	~	Bulimia	Multimodal - psychodynamic in orientation	Compares in and outpatient	Medium size city south west Germany	In and out patient University Hospital
Wilson et al. (1999) [1] Walsh et al., 1997	120	0	120	26.1	83% Caucasian	Bulimia	CBT	Psychodynmically orientated psychotherapy	~	Recruited via local media
Wilson et al. (2002)*[1]Agras et al. (2000)	154 (220 original)	0	154	28.1[1]	76.81% [1] Caucasian	Bulimia	CBT	IPT	~	University based medical centres
Loeb et al. (2005) *[1] Agras et al. (2000)	81 (220 original sample)	0	81	28.86	76.81% [1] Caucasian	Bulimia	CBT	IPT	~	University based medical centres
Treasure et al. (1999)	125	0	125	28.65	~	Bulimia	Motivational Enhancement Therapy (MET)	CBT	~	Eating Disorders Unit Bethlam and Maudsley Hospital

1 Denotes original article

* Denotes same sample

~ Data not provided

Table 3. Details of Therapeutic Alliance Measures.

Tool	Author	Tool used by	Approach to measurement	Components of TA measure	Reliability data (Martin et al., 2000)
Working Alliance Inventory (WAI)	Horvath and Greenberg (1989)	Treasure et al., (1999) (Short version: Hatcher and Gillespie, 2006) used by Brown et al. 2013).	Patient Therapist and Independent ratings 7-point likert scale	Bond; goal agreement and task agreement.	Cronbach's α = .90
Vanderbilt Therapeutic Alliance Scale (VTAS)	Hartley and Strupp (1983)	Loeb et al. (2005)	Observer rating 6-point likert scale	Therapist contribution; patient contribution and patient/ therapist interaction.	Cronbach's α = .91
Helping Relationship Questionnaire (HRQ)	Luborsky (1984)	Wilson et al. (1999) and Wilson et al (2002)	Patient	Experience of being understood and of collaboration	Cronbach's α = .91
Helping Alliance Questionnaire (Luborsky 1985)	Luborsky (1985)	German version used by Hartmann et al. (2010)	Patient (A therapist rated version is also available (Gerstley et al. 1989). 6-point likert scale	Experience of therapist providing help needed and experience of collaboration on agreed goals	Cronbach's α = .91

Table 4. Primary Outcome Measures.

Study	Primary outcome Measures	Description
Brown et al. (2013)	- Weight Gain - Eating Disorders Examination Questionnaire (EDE) (Fairburn, 2008)	- N/A - Self- report scale includes 22 items providing a global measurement of ED psychopathology and four subscales; restraint; eating concerns; shape concerns and weight concerns. Rated on a six point scale.
Hartmann et al. (2010)	- Eating Disorder Inventory (EDI) (V2) (Garner, 1991).	- Is a self-report measure comprised of 11 subscales related to ED psychopathology.
Loeb et al. (2005)	- Self report - EDE (Fairburn and Beglin, 1994)	- Weekly recall of purging frequency. - Self- report scale, providing a global measurement of ED psychopathology; four subscales; restraint; eating concerns; shape concerns and weight concerns. Rated on a six point scale.
Treasure et al. (1999)	- Scale developed for the European-wide COST Action B6 Project (Treasure and Kordy, 1998)	- Self report and clinician ratings of bingeing and purging.
Wilson et al. (1999)	- Self report - EDE (Fairburn and Beglin, 1994)	- Bi-weekly Recall of frequency of vomiting - Self- report scale, providing a global measurement of ED psychopathology; four subscales; restraint; eating concerns; shape concerns and weight concerns. Rated on a six point scale.
Wilson et al. (2002)	- Self report - EDE (Fairburn and Cooper, 1993)	- Diary of episodes of binge eating and purging. - Self- report scale, providing a global measurement of ED psychopathology; four subscales; restraint; eating concerns; shape concerns and weight concerns. Rated on a six point scale.

Table 5. CTAM Quality Ratings.

CTAM AREA	Brown et al. (2013)	Hartmann et al. (2010)	Wilson et al. (1999)	Wilson et al. (2002)	Loeb et al. (2005)	Treasure et al. (1999)
1. Sample type	2	2	2	0	0	2
2. Sample size	5	0	5	5	5	5
3. Random Allocation	0	10	10	10	10	10
4. Description of randomisation	0	3	0	3	3	3
5. Independent randomisation	0	0	0	0	0	0
6. Independent assessment	0	0	0	0	10	0
7. Standardized assessments	6	6	6	6	3	3
8. Blind assessments	0	0	0	0	0	0
9. Description of blinding	0	0	0	0	0	0
10. Blinding verified	0	0	0	0	0	0
11. TAU/ control group	0	10	10	10	10	10
12. Appropriate Analysis	5	5	5	5	5	5
13. Intention to treat/ drop-out	0	0	4	0	0	0
14. Description of treatment/ treatment manual	6	0	6	6	6	3
15. Treatment adherence	5	0	5	0	5	0
Percentage	29	36	53	45	59	41
Quality	**Poor**	**Poor**	**Acceptable**	**Poor**	**Acceptable**	**Poor**

Chapter 2: Major Research Project

The Role of Emotion Regulation and Coping in Binge Eating Disorder.

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Lay Summary:

Obesity is a growing problem in the UK. It is thought that treatment for obesity might not be useful for some people who use food as a way of coping. A large proportion of people who go to weight management services are thought to have Binge Eating Disorder (BED). This is an eating disorder (ED), in which the person eats a lot of food, very quickly, leaving them feeling guilty and upset. A number of psychological theories and models partly explain what keep problems with eating going, but no one model fully explains BED. This study therefore aims to explore, from the point of view of the individual, what leads to problems with weight and what keeps those problems going. Nine people were interviewed. All were obese; four also met criteria for BED. Analysis revealed five main themes: 1) Early life experiences, 2) The development of weight problems, 3) Use of food, 4) Attitudes to coping and 5) Beliefs about self. Analysis suggested that people who had BED had more difficult childhood experiences. They relied on more unhelpful ways of coping, including using food to make them feel better. Those who did not meet criteria for BED said getting older and health problems triggered weight problems; had fewer negative early experiences and more helpful ways of coping. High levels of stress were reported by both groups. This study offers insight into the factors that keep problems with eating going in an obese sample. The need for a better way of explaining the development and maintenance of these difficulties is noted.

Abstract

Background**:** Obesity has reached epidemic proportions in the developed world; this has implications for quality of life and demand on healthcare systems. Current treatment approaches for obesity appear effective in achieving short-term weight loss for some, but gains are not always maintained long-term. Treatments for Binge Eating Disorder (BED) can reducing binging but are not shown to have a significant impact on body weight. Evidence suggests that current treatments lack effectiveness because they do not target the factors underlying chronic weight and eating problems.

Aims: To investigate, from the perspective of the affected individual, the role of emotion regulation and coping in BED.

Methods: Nine participants took part in a non-directive, semi-structured interview. All were classified as obese: four met criteria for BED. Interviews were transcribed and analysed using Interpretative Phenomenological Analysis.

Results: Five main themes were found; 1) Early life experiences, 2) The development of weight problems, 3) Use of food, 4) Attitudes to coping and 5) Beliefs about self. Differences were noted across these key themes between the BED and non-BED group with those in the BED group relying more on maladaptive strategies for coping, having more negative childhood experiences and having more negative self-perceptions. The results of this study highlight the need for treatment to focus on increasing individual's resources for managing emotions, by widening their coping strategies.

Key Words*: Obesity; Binge Eating Disorder; qualitative; psychological mechanisms*

Introduction

Obesity: Levels of obesity in the UK have reached epidemic proportions, with one in four adults now obese (Department of Health, 2011). Levels of obesity are higher in Scotland than in the remainder of the UK (Waumsley, 2011) placing increased burden on healthcare systems. Recommended treatments for the management of obesity are: group or individual psychological intervention; evidence-based lifestyle and pharmacological interventions (SIGN, 2010). Despite the inclusion of psychological interventions in treatment guidelines, less emphasis is placed on these factors versus sociological and dietary factors (Waumsley, 2011).

In a review of thirty-six papers (N= 3495) Shaw et al. (2005) found Behavioural Therapy (BT) and Cognitive Behavioural Therapy (CBT) plus diet and exercise, to produce weight loss. The authors noted that research into the effectiveness of other psychological interventions is less robust and that this may limit the conclusions of their review. Cooper et al. (2010) conducted a randomized controlled trial (RCT) of a new CBT approach to obesity. They compared this to BT and guided self-help (GSH) and found that BT and CBT were effective in producing weight loss; however, weight loss was not maintained at three year follow-up. The authors suggested that this could be because CBT does not target the factors maintaining obesity. This conclusion is mirrored by Buckroyd (2011) who highlighted the need to treat the obese population as heterogeneous. In the study by Cooper et al. (2010) the BT and CBT conditions lasted for forty-four weeks and the GSH condition only twenty-four, the treatment conditions therefore may not be directly comparable. In addition all participants were female and were excluded if they had a psychiatric or medical co-morbidity. These exclusions may limit the application of these findings to clinical populations.

Binge Eating Disorder (BED): Buckroyd (2011) states that a large minority of obese individuals may have BED. Three percent of the general population have BED, compared to thirty percent of individuals attending weight management services (SIGN, 2010). The DSM IV (APA, 1994) describes BED as an ED characterised by episodes of rapidly consuming, in a short period of time, large quantities of food. These episodes occur, on average, two days per week for six months, and are associated with feelings of uncontrollability and distress.

These episodes occur in the absence of regular compensatory strategies and not during the course of another ED.

Psychological models of Binge Eating: A number of psychological models seek to explain the occurrence of binge eating. The cognitive behavioral model focuses on the role of dietary restraint in triggering bingeing. Associated treatments therefore aim to introduce healthy eating patterns and to reduce unhelpful cognitions relating to eating, weight and shape (Telch et al., 2001). The negative affect model purports that negative mood states trigger binges, which serve to reduce negative affect (Telch et al., 2001). The interpersonal model suggests that interpersonal problems are related to the development of binge eating, which is maintained via negative reinforcement. Binge eating may then result in social isolation and inhibit satisfying relationships; which may trigger further binges and maintain disordered eating behaviours (Iacovino et al., 2012).

Stice et al. (2001) noted that models of binge eating tend to fall into two camps, focusing on either dietary or affective factors. They argue that a dual pathway model combining dietary and affective elements is appropriate. Stice and colleagues investigated whether individuals with an affective BED would be less responsive to psychological intervention. They concluded that CBT was more effective for individuals who fall within the dietary subtype. The authors stress a need for treatment to be matched to subtype to ensure treatments offered are effective.

Psychological treatments for BED: The following interventions are recommended for BED (NICE, 2004): 1. Evidence-based self-help. 2. Self-help plus support 3. CBT. 4. Interpersonal Psychological Therapy (IPT) or Dialectical Behaviour Therapy (DBT). A recent systematic review of twenty-six RCTs of treatments for BED was carried out by Brownley et al. (2007). The treatment approaches included; medication only; medication with BT; BT only; CBT & DBT. The authors found moderate evidence to support pharmacological and behavioural interventions and weak evidence for all other interventions. CBT was found to reduce bingeing, but not to produce weight loss.

Risk Factors for BED: Fairburn et al. (1998) conducted a study investigating risk factors for BED. They compared women with BED, other EDs or psychiatric diagnoses to a control group. They found that the BED sample was characterised by exposure to parental

depression, vulnerability to obesity and exposure to negative comments about weight and eating.

Buckroyd (2011) suggests that there may be a relationship between attachment experiences and the use of food to manage emotions. Attachment theory, proposed by Bowlby (1969), posits that individuals learn to regulate emotions via early relationships with care-givers. It states that in infancy we seek proximity to our primary caregivers to receive comfort and reduce distress. Caregivers' responses will influence the strategies the child employs in the future and will determine the child's attachment style in that relationship. A working model of this relationship is internalized, serving as a blueprint for future relationships. If a caregiver is responsive to the child's emotional state this will result in a secure attachment style and the child is able to self-regulate emotion based on the internalization of this attachment relationship. Conversely, if the caregiver is not attuned to the child's emotional needs this can result in an insecure attachment style and poorer ability to self-soothe.

Research findings suggest that in adulthood, insecure attachment is linked to the use of ineffective or maladaptive strategies to regulate emotional distress (Fonagy et al., 1996). Early experiences of abuse or trauma may predispose individuals to psychopathology in the form of ED (O'Kearney., 1996). These early traumatic experiences likely impact upon attachment style and may make it more likely that individuals will employ external strategies to regulate their emotional experience. Buckroyd (2011) explains that past experiences may result in vulnerability to obesity, due to the use of eating as a means of managing emotion.

Qualitative research in the area: Often cited in relation to BED is literature concerning bingeing in a Bulimic populations, however, there appears to be little research asking BED individuals about their experiences of bingeing, perhaps with the assumption that the function is the same. Jeppson et al. (2003) qualitatively explored the nature and functions of the binge-purge cycle in Bulimia with eight women. They argued that the use of quantitative methods had limited previous studies. Their analysis revealed key themes including; the use of binge-purge to: cope and increase control; improve self-regard and social status; regulate emotional experience and finally, to provide physiological reinforcement.

Although there have been quantitative studies of the relationships between attachment, emotion regulation and ED (see review by Zachrisson and Skarderud, 2010); few have

focused on these factors in an obese population. Fewer still have explored this from the individual's perspective, thus gaining a more in-depth understanding of the psychological mechanisms involved (Bidgood and Buckroyd, 2005). Whilst psychological models are useful in helping us to conceptualise BED, Fox (2009) argues that they do not allow us to consider the actual emotions playing a role in ED or the beliefs and interpretations associated with these emotions. Qualitative research plays a role in unpicking these factors.

Aims

This study aimed to qualitatively explore the psychological mechanisms involved in BED from the perspective of affected individuals and to consider differences and similarities in the accounts of obese individuals with and without BED.

Methods

Ethical Issues: Prior to commencing, ethical approval was gained from a Local Research Ethics Committee (appendix 2.2). No changes were required of the original proposal (appendix 2.3).

Design: This study used a comparative, exploratory, qualitative design.

Recruitment: Participants were purposively recruited between October 2012 and June 2013. Potential participants were identified via the target service's existing assessment process as follows: An assessment of suitability for the service was carried out. Where initial assessment did not indicate disordered eating and inclusion criteria were met (see table 1) clinicians provided clients with the Participant Information Sheet (PIS) (appendix 2.4) and gained consent for the Principal Investigator (PI) to contact them (appendix 2.5).

When symptoms of disordered eating were identified, a psychological assessment, incorporating clinical interview and completion of the Questionnaire on Eating and Weight Patterns Revised (QEWP-R) (Spitzer et al., 1994) was undertaken. The QEWP-R is a twenty-seven item, self-report assessment of binge eating and weight control behaviors in line with the DSM- IV (APA, 1994) criteria for BED. This tool has been shown to satisfactorily perform as a screen for BED with reasonable specificity (.74) (Celio et al., 2004). Where psychological assessment suggested the presence of BED referral to the study was as described above.

Potential participants were contacted by telephone by the PI and were provided an opportunity to ask questions about the research. They then gave verbal consent to participate and made an appointment to participate in an interview. Prior to completing the interview participants were given another opportunity to ask any questions and then completed a consent form (appendix 2.6).

INSERT FIGURE 1 HERE

In line with recommendations from the relevant literature (See Smith et al., 2009) a total of nine participants were recruited to this study (see figure 1). All were classified as obese; four also met criteria for BED. The two groups are referred to as non-BED and BED respectively, throughout this paper. Demographic information is provided in table 2. Our sample therefore appears to be broadly similar to those attending the target service generally (Morrison et al., 2011) with approximately one quarter of attendees recorded as male. The average age of our sample was mid-fifties making our sample older than the population attending the target service who are in their mid-forties.

INSERT TABLE 1 HERE

INSERT TABLE 2 HERE

Interview Schedule: A semi-structured interview (appendix 2.7) was devised based on the relevant literature. This was developed in consultation with clinicians working in obesity management and an experienced qualitative researcher. The interview schedule was used as a non-directive guide.

Interview Procedure: In-depth, exploratory interviews (lasting between 45 and 90 minutes) were carried out and digitally recorded by the PI. The interview schedule was used to guide the interview, but the PI remained flexible to discuss issues as they were raised; open-ended questioning was utilized to aid this process. Interviews were transcribed verbatim. Numerical codes were assigned to transcripts and information identifying persons and place removed to ensure anonymity. Once transcribed, and checked for accuracy, interview recordings were deleted.

Data Analysis: Interpretative Phenomenological Analysis (IPA).

IPA allows the researcher to gain insight from the experts, that is, from individuals who have experienced the phenomena under investigation (Reid et al., 2005). It does not set out to test a hypothesis (Reid et al., 2005). In applying IPA a phenomenological stance is maintained: there is an emphasis on the experiences of the people taking part. Larkin et al. (2006) states that the researcher tries to gain an understanding of the person's experience; the researcher therefore tries to get alongside the participant to develop a description of their experiences. Interpretation in IPA requires the researcher go beyond the descriptive, to consider meaning; this may draw upon psychological theory, literature and the researcher's own knowledge (Larkin et al., 2006). The researcher must therefore walk the line between describing the spoken words and considering the contextual meaning of the narrative.

Although qualitative methods are less frequently used for doing so, there are precedents for using IPA in a comparative context, examples of which include: Arole et al. (2002); Day (2008) and Rice et al. (2010). Elliot et al. (1999) suggest that investigating a phenomenon from more than one point of view allows for the development of a detailed multidimensional account of the phenomena under investigation.

Interview transcripts were analysed using IPA using the steps described by Langdridge (2002) (see appendix 2.8 for IPA steps and appendix 2.9 for sample transcript): The PI became familiar with the data via transcription. Each transcript was then re-read, with notes made regarding the content in the margins. The transcript was then re-read, whilst taking further notes and applying 'bite-size' labels to topics. Through this method initial themes were identified. Initial themes were then grouped together to develop overarching themes. This process was repeated for each transcript.

The overarching themes for each transcript were then compared to others in the same group (BED or non-BED). Where themes reoccurred between transcripts these were taken to represent shared meanings (Flowers et al., 1997). It is important to emphasise that not all participants expressed the same themes and there were variations in the narratives elicited. The aim of the analysis was to identify the commonalities between participants which were thought to represent potential psychological mechanisms relating to problems with weight. From these comparisons major themes were developed for both the BED and non-BED

groups. These major themes were then compared and integrated to create super-ordinate themes, encapsulating the similarities and polarities between groups. To ensure validity of the themes identified, a sample of the interview transcripts were analysed by the research supervisors who were blind to participant group and other analyses. There was agreement in the themes identified.

Reflexivity: A key aspect of IPA is the researcher's awareness of how their own knowledge, experiences and perceptions may influence their interpretation of data (Reid et al., 2005). It is important to acknowledge any possible bias within the current study. The PI is a 27-year-old female of normal weight and no history of ED. She has clinical experience of working within an obesity management service during training in Clinical Psychology. This means that she has an awareness of the difficulties faced by this group and of key psychological theory and treatment approaches applied to this population.

Results

Five super-ordinate themes were identified across the groups: 1) Early life experiences 2) The development of weight problems 3) Use of food 4) Attitudes to coping 5) Beliefs about self. Each super-ordinate theme contained subordinate themes which differed between the groups; each of these is discussed below. Illustrative quotations from participants are provided.

1. Early life experiences: a difference was observed between the groups in their descriptions of early life. The BED group reported a greater amount of adversity in relationships with primary caregivers as compared with the non-BED group. Two subordinate themes are discussed below:

"It was a bit traumatic" –problems in relationships with caregivers.

All members of the BED group described relationships with caregivers characterised by fear, unpredictability and a lack of responsivity. For example:

"my step dad beat me up for quite a few years, so I was obviously quite an anxious stressed teenager so I didn't eat anyway because of all that going on, so it was a bit shit really" – 3

"she just didn't talk to me and all she would say to me was you should feel yourself lucky to be here and I would try to talk to her about how I felt and she would say you need a

psychiatrist, you're mental, you're horrific, you're the horridness in this family and you should feel lucky that you were born" –3

It was apparent that for many of the BED group they ascribed a causal link between those experiences and their problematic eating. This phenomenon is discussed in greater depth within the 'use of food' section.

"Spending time with my parents" - a balance between the bad and good

Conversely, the majority of the non-BED group described positive relationships with their primary caregivers. For example:

"I know my mother loved me (sure). Like I have memories of her coming up to the school when I was five with a new rain coat to bring me home. (ok)." –2

Difficult childhood experiences were not absent in the non-BED group, but where a negative relationship with a caregiver was present the effects of this were mediated by positive experiences with other attachment figures. For example participant six describes a difficult relationship with her mother and contrasts this with her relationship with her father:

'No as I say we were brought up well enough, and we never wanted for anything, although sometimes I, when we were young my mum never really kissed us and cuddled us a lot because I don't think she was used to that herself' – 6

"Em I think it's because I was the only daughter he always just had that wee bit for me, and I could talk to my dad (mm hmm). I could talk to my dad better" –6

2. The development of problems with weight.

Both groups discussed stressful life events playing a role in contributing to their weight problems. There was, however, variance in the themes identified for each group:

"I hate growing old" and other adjustment issues:

For members of the non–BED group, themes relating to changes in the 'self' resulting from health problems and/or ageing were prominent. These factors seemed to influence how

participants viewed themselves, with difficulty adjusting to health or age related changes viewed as being linked to the onset of weight problems. For example:

'I didn't make allowances for the fact that I wasn't working and obviously I didn't need to eat as much and that was when I started to gain weight (ok). But unfortunately because I was really ill, really down I wasn't able to do any exercise (sure) so the weight just {motions with hands} and you probably know that over 60 once it's very very hard to shift (mm hmm)' –5

Whilst health was noted as an issue for those in the BED group this tended to be in terms of the negative consequences of binge eating, for example:

"it affects me terribly with the breathlessness, walking round the shops I get breathless, and in all honesty if I was now to diet and lose a stone, there's a tipping point. A health tipping point for me that I can be overweight and having a problem and its fine I'm ok and then I go beyond that tipping point and it all falls to pieces" – 4

<u>"I've had a lot of stress in my life" – and the impact on weight</u>

Participants in both groups described the role of stressful life events in triggering problems with food and pointed out the cumulative nature of these experiences. In general the BED group described these stressors as maintaining existing difficulties with food as opposed to triggering their onset. Stressors included interpersonal issues such as conflict and loss and social stressors such as financial problems:

(So you said that impact of this argument with your brother was to make you feel understandably upset, how then did that impact on your attempts to lose weight do you think?)

'Well before you know what you're, it sounds so stupid, but before you know what you're doing you've turned from the good work that you're doing, you've gone back to eating the stuff that you shouldn't really be eating because I suppose it's just its pleasurable' – 7

What was apparent within the transcripts was that stress, in whatever form, impacted on the way in which the participants related to food:

"I lost a couple of stone myself and I was feeling really pretty good actually and then something stressful happened and I started eating and then more stressful things just built up on top of that and before I knew I was three stone heavier you know' – 8

These excerpts bring to light a potentially important mechanism contributing to the maintenance of not only BED, but obesity generally.

3. Use of food – emotion management versus bad habits.

Both groups discussed the problematic nature of their use of food; but these accounts differed between the groups.

<u>"I need to learn that food isn't a way of coping" - eating as a method of managing emotions.</u>

For the BED group there was a link between early adverse experiences and the use of food to manage emotions. For example one participant said:

'I had, my mother was an alcoholic (mm) and there was three of us and we all slept in the one room and when, which would maybe be twice a week there was drama, cutting a long story short, that's what we would do, so all three girls one of us would sneak up to the kitchen while it was all going off and settling down and whatever and would grab the bread the butter, the Dairylea cheeses whatever from the fridge, and take it back and sit and eat through the drama.' – 4

Not only did these adverse experiences influence coping in childhood but they influence how food was viewed by the individuals later in life:

'so when I moved out of home and I was responsible for my own food shopping and cooking that's when I discovered food and I loved it so I bought so literally since I've been 17 I've started eating because it was it was like woah what is this this is food, this is nice and I've never been about to stop' – 3

It seems that perhaps, by some learning process, a link was made between food and emotions and that this relationship played a role in maintaining their difficulties. For the BED group there was a clear role of binge eating in managing emotions. For example:

'Yeah to...to stop myself from feeling. Now whether it be feeling sad because of what a kids gone through or feeling frustrated cause I'm not getting through to certain you know, feeling pissed off at red tape or bosses. But then on the other side I also eat when I'd had a brilliant day. That's when I would treat myself to the Chinese carryout or the Indian carryout because I hadn't I done well, I had got through to that kid so I deserved a reward (ok) and my reward was always food (always food ok)' – 1

Whilst this was also the case for a minority of the non-BED group the intensity described by the BED group was greater, being more akin to a compulsion. For example:

"I was just obsessed about when I was going to start eating and how I was going to fit my eating in around people not knowing what I was eating (mm hmm) and it just so that's the problem to lead a normal life when you're thinking of where am I going to stash my food" – 3

The process of bingeing differed for the BED group and the non-BED group. See below:

'I'll tend to, if I'm on my own with just a lot of boredom {laughs} and I'm feeling miserable I'll go out and I'll buy six bars of chocolate and I'll work my way through the bars of chocolate, but I actually thoroughly enjoy doing that, I get such pleasure from the flavours and once I finish the chocolate I'll maybe go and have a couple of packets of crisps and by the time I'm finished I'm totally stuffed and feeling rotten and I have to lie down on the couch and think oh why did I do that I feel terrible now {laughs}' – 8

The above excerpt highlights the initial positive impact of eating in producing positive feelings in the short term. This process may therefore be viewed as self-reinforcing. All BED members also spoke about the negatives associated with bingeing. For example, participant 4 described how binge eating triggered negative cognitions about themself:

'You feel sad, and worthless and stupid and all those things, all those negative things, that's when you feel you know what I mean, you've done it to yourself, you've not got a right to cry how's this supposed to be helping don't blame anyone else you go through all those things' – 4

It's easy to see how the short term positives of this method of coping, soon gives way to unintended negative consequences impacting on the participant's self-view. One can therefore see how the binge process is unintentionally maintained as the result of the negative emotions it provokes; which, as noted earlier, are a trigger to difficulties with food.

"I'm just not eating properly" – learning and habits

Another factor contributing to problems with weight was related to eating behaviours. A number of participants across the groups described traditional family mealtimes in childhood where waste was discouraged. These experiences in childhood appeared to influence eating behaviours in adulthood. Given the average age of the participants within this study it seems reasonable to consider this in the context of post-war Britain where the participant's parents likely experienced rationing. For example, participant 1 said:

"I must admit I mean I'm fifty-five, so when I was young my mum was a child of the war (mm hmm) when there was nothing so therefore I think they had a more, more respect for food" – 1

For the non-BED group they described their main problems to be related to eating either the wrong types of food or excessive portions, for example:

"Bread and sweet things are my main down fall." – 2

Whilst portion control and healthy eating were issues for the BED group too, the main issue recounted was bingeing on large quantities of food as detailed in prior sections. This reflects their classification of obesity with or without BED. There was a degree of overlap in these features suggesting sub-threshold eating disturbance in a minority of the non-BED group. The overlap of these themes suggests a role of learning and developmental factors in contributing to weight management issues in both groups.

4. Attitudes to coping: Evident in the transcripts was a difference in approach to managing stress. The BED group described an over-reliance on binge-eating and endorsed unhelpful attitudes regarding coping strategies compared to the non-BED group who appeared to describe greater resilience and proactive coping.

"It's the only way I know how to cope" – a lack of alternative strategies

For the BED group it was clear that their main method of coping with emotions was binge-eating. There was also an attitude that they were unable to cope, for example:

'she started on me because she thought great I've got a vulnerable person here, because I'm not just one of these people when they get bullied will just say you know f off and get out my sight, you know I'll just crumble if someone bullies me so that started and I've had major problems at work since' –8

"Carry on and deal with it" – resilience and active coping

Whilst some members of the non-BED group also described eating in response to negative feelings overall this group expressed a greater level of self-belief and hopefulness regarding their ability to cope as well as a wider range of coping strategies:

"Fight back, I mean I'm really quite a strong person. There's just so many things batting in at me at the moment and its 2013 and I've got to do it. Just for myself {laughs}"- 2

"yeah I did find that helped nothing changed the situation never changed but it was basically a sympathetic ear you know, I phoned and used them twice. What saved me, as I told you at the start I worked all my life and what saved me was going back to work (sure ok) which has always been a rock for me, just something I can apply myself" – 6

5. Beliefs about the self

"I've always been confident in myself" - positive beliefs about the self

Whilst both groups gave examples of positive and negative views about themselves it seemed that for the non-BED group there was a belief that the self was essentially capable, for example:

"she was secure in herself my mother. A very with it woman. Which I think I am as well to be quite honest with you" – 2

"I've always been confident in myself (mm hmm) you know. Because of various things that have happened in my life I've had to be (ok)" – 5

Beating myself up – a lack of self-compassion

The BED group on the other hand, appeared to hold largely negative beliefs about themselves expressed via self-criticism and a lack of self-compassion:

"I just think well I'm fat anyway, who'll know, who'll care about it and ... I don't know really I do know there is something in the back of my mind telling me I shouldn't do it. But I just feel who really cares, who really bothers. No one will actually give a damn if I do that and it's the only way that I know how to cope". – 3

In this excerpt it not only does participant 3 describe herself negatively in terms of weight she also appears to express more general negative feelings that no one cares for her. Perhaps this statement reflects how she views herself, as essentially unworthy of care. This was a sentiment echoed by others in the BED group.

We all hold beliefs about ourselves that result from our encounters with others and experiences more generally. There is nothing unusual per say about the accounts given by either group here, but the differences between the groups are noteworthy as it may be the case that these negative beliefs about the self could play a role in both triggering negative affective states and impacting on how able the individual believes they are to develop alternative ways of managing emotions.

Discussion

This study has sought to present the lived experiences of a group of individuals seeking help to manage their difficulties with weight. All participants were obese but within this umbrella category a sub-group met criteria for BED. Analysis identified five key themes 1) Early life experiences, 2) The development of weight problems, 3) Use of food, 4) Attitudes to coping and 5) Beliefs about self.

Early life experiences: A history of negative experiences of caregivers was a feature for the majority of the participants within this study. This is in line with the findings of previous research. For example, Thomas et al. (2008) found childhood adversity to be related to a 20-50% increase in risk of obesity in a prospective longitudinal study. Where negative experiences of one caregiver were recounted by members of the non-BED group these were in the context of a positive experience of another caregiver. For the BED group the level of

negative experiences of key attachment figures appeared to be greater. This theme reflects existing literature: for instance, Troisi et al. (2005) suggested that within an ED population there are high rates of negative experiences of attachment figures. The prevalence of abuse has also been found to be greater in the BED population than the general population (Fairburn et al., 1998).

It is of importance that participants within the BED group reported difficult experiences with caregivers and related this to the development of binge eating as a maladaptive way of coping with emotions. Experiences with primary caregivers influence the development of affect regulation skills. Problematic attachment relationships in childhood can have an adverse impact on the development of this ability (Golding, 2007). This is important to consider given that research has suggested that insecure attachment predicts treatment outcomes in BED. For example, Tasca et al. (2006) carried out a RCT comparing group-CBT to group psychodynamic interpersonal therapy and a wait-list control group. They found that for the CBT group, lower attachment anxiety was related to reduced bingeing following treatment, whereas, higher attachment anxiety was related to drop-out from treatment. Conversely, in the Interpersonal Therapy group, higher attachment anxiety was related to reduction in bingeing following treatment.

The Development of Weight Problems: Ageing and the onset of health problems were major themes raised by a number of participants in this study. The process of adjustment to these factors was linked to weight gain. It seemed that the process of adjustment involved a re-evaluation of self-views and self-worth. This theme perhaps echoes the negative perceptions our society generally associates with aging. Seccombe (1991) suggested that those who are middle-aged, as were the sample in this study, are facing age-related changes and would therefore hold more negative views of getting older than younger adults. Issues of ageing also impact on body satisfaction, with weight gain related to increasing age (Tiggemann, 2004).

Stressful life circumstances were cited by all participants as either triggering or maintaining problems with food. This theme is supported by Dallman (2010) who stated that changes in eating behaviour may be associated with perceived high stress, chronic interpersonal or environmental stressors. Interestingly, Dallman et al. (2005) suggest that eating 'comfort foods' e.g. foods high in sugar and fat content, mediate the impact of stress through a biochemical process.

Coping and use of food: A difference between the accounts of the BED and non-BED group related to their beliefs about their ability to cope and their application of coping strategies. The results of this study suggest that the BED group were more passive and avoidant in their coping styles, in comparison to the non-BED group, who reported more active coping strategies. It may be the case that the BED group lacked alternative strategies for coping and therefore were over reliant on the use of binge-eating. This suggestion mirrors the findings of Whiteside et al. (2007), who found that those who binge ate lacked more helpful strategies to manage difficult emotions. This theme can also be considered from a developmental perspective, in line with Newton and Flint (2011) who suggested that unhelpful coping strategies, linked to obesity, develop in the context of adverse early life experiences.

The BED group described binges being triggered by the experience of positive and negative emotions. The consumption of food was used to elicit positive affect and/or reduce negative affect. This finding to some extent supports negative affect models of ED (Deaver et al., 2003) and supports the existing literature which has shown a relationship between the experience of negative emotion and increased food consumption (e.g. Canettie et al., 2002 ; Kozak & Fought, 2011).Within this study, however, it is notable that bingeing occurred in response to both positive and negative emotional states and played a role in eliciting positive emotions as well as reducing or suppressing negative emotions. This is suggestive of an affect regulatory role for binge-eating.

Self-beliefs: In general, it appeared that the BED group held more global negative views of themselves as compared with the non-BED group who appeared to have more balanced views of themselves. Fairburn (2001) suggests that this sense of low self-esteem is common within the ED population and that this may relate to adverse experiences in early life.

Conclusion and Implications

This study identified a number of themes relating to the psychological processes involved in the development and maintenance of BED, from the perspective of participants with and without this diagnosis. It appears that these themes can be linked to a number of popular theories of BED; it therefore seems relevant to consider an integration of these models to adequately address the psychological processes involved in BED. This may have important implications for treatment approaches, which in addition to addressing diet and exercise, may

need to address deficits in ability to manage emotions, negative self-views and attitudes to coping.

The findings of this study point to a link between early experiences with key attachment figures and the development of reliance on food as a method of regulating affect. For example, when overwhelming affect is triggered, perhaps by stress or negative cognitions, individuals rely on eating as a method of managing associated emotions. This is due to a lack of alternative coping strategies and the belief that they cannot cope in another way. These findings have clinical implications for treatment of BED. If individuals rely on food to manage emotions then treatment must place an emphasis on increasing individual's resources for managing emotions. This could be achieved by prioritising the acquisition of a wider range of adaptive coping strategies, for example, by introducing strategies to increase distress tolerance.

The behavioural focus of current treatment approaches fails to acknowledge that to change eating behaviours would remove a key strategy for coping (Buckroyd, 2011). This may explain why the impact of CBT is not greater in this population (Brownley, 2007) and perhaps why CBT for obesity does not have longer lasting effects (Shaw et al., 2005). There is some evidence for the efficacy of treatments that target emotions regulation strategies in BED. For example in an RCT of DBT for BED, Telch et al. (2001) found participants in the DBT group improved significantly in terms of binge frequency and eating disorder psychopathology compared to a wait list control group. These findings may also suggest a role for early intervention as a method of preventing the development of BED and obesity.

Finally, this study supports the distinction between obese individuals with and without disordered eating, implicating differing psychological mechanisms in the development and maintenance of these difficulties. As a result, this would support the need for different treatment approaches to manage these problems. There was some overlap between the groups suggesting a need for routine screening for disordered eating within obesity management services to allow for treatments to be appropriately targeted. This is in line with comments by Newton and Flint (2011) who argued that weight loss treatment is contraindicated where an eating disorder is present, due to the complex nature of contributing factors. This highlights

the need for integrative psychological interventions targeting a range of factors, which underlie weight problems.

Limitations

A semi structured interview was developed to prompt discussion around areas deemed relevant to BED in the literature. This of course will have influenced the interviews, however, a non-directive approach to interviewing was adopted in order to allow participants to discuss areas of importance to them. Participants were also offered an opportunity to raise any topics not covered within the interview schedule.

On analysing the data produced the research team acknowledged that whilst the breadth of the interview allowed participants to discuss a range of topics, the resultant data was varied meaning that identification of themes was difficult. As a result the themes presented within this paper reflect only those which appeared in the majority of transcripts and were therefore thought to have reached saturation. It may be that there were other topics which may have been identified as themes with a larger sample size.

The sample within this study were recruited from an established obesity management service and were thus representative of a chronic clinical sample. Furthermore, those who took part may represent a specific sample of the population willing to engage in research. These factors may limit the generalizability of our findings. On the other hand, minimal exclusion criteria were applied, allowing us to consider this sample as reasonably representative of the help-seeking obese population.

Additionally, the design of this study does not allow for conclusions to be drawn about cause and effect, but, perhaps provides an insight into possible mechanisms underlying the development and maintenance of BED. This may therefore provide a starting point for further research.

Strengths

A major strength of this research is its relevance to clinical practice. The exploratory nature of this study allows for confirmation of a number of existing models of binge-eating, yet also emphasises the need for more integrative and holistic approaches to treatment.

Future Directions

The present research suggested a role for emotion regulation difficulties in the development and maintenance of BED. Future research could therefore compare traditional CBT approaches to the management of BED and obesity with treatment approaches which target skills of emotion regulation.

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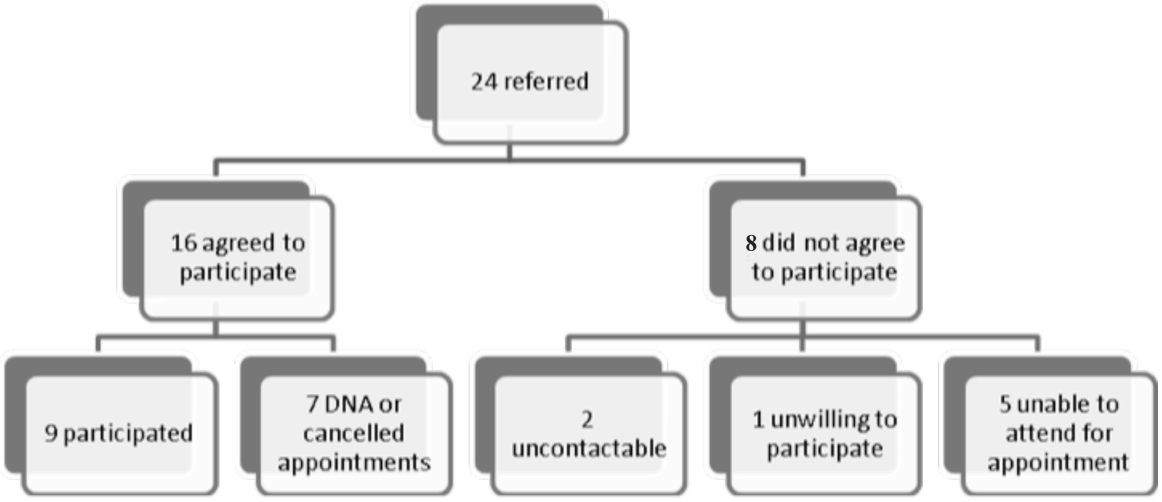

Figure 1. Recruitment flow chart.

Table 1. Inclusion and Exclusion Criteria.

Inclusion Criteria.	Exclusion Criteria.
1. Classified as obese **2.** Seeking support from GCWMS **3.** >18 years old **4.** Fluent in English **5.** Able to provide informed consent **6.** No previous NHS weight management intervention	Does not Conform to one or more inclusion criteria.

Table 2. Participant Information.

Demographic variable	Participant Information
Age	Range 34-70
Gender	7 female (77.8%): 2 male (22.2%)
Ethnicity	All white UK

Chapter 3: Advanced Clinical Practice I. Reflective Account (abstract only).

Learning Disability Vs. Adult Mental Health: Is There a Gap in the Market? A reflection on the development of neuropsychological competencies and their ethical implications.

Abstract

This reflective account takes a developmental perspective in considering the growth of competence in neuropsychological assessment. The Integrated Developmental Model (Stoltenberg, 1998) is employed to aid in tracking progress from first to third year of training. This model posits that individuals in training move through three stages of skill development across three core areas. These are; self and other awareness; motivation and dependency-autonomy. The second model adopted within this account is Atkins and Murphy's Model of Reflection (1994). This model describes three important stages of reflection beginning with an awareness of feelings of discomfort, progressing to an analysis of the situation and finally culminating in a new understanding of events. This second model is used to structure case examples across the stages of development suggested by Stoltenberg's (1998) developmental model.

This reflective account identifies how the trainee moves from high levels of dependence on the clinical supervisor and an inward focus towards higher levels of autonomy and independence in decision making as core skills and knowledge develop. The account highlights how the trainee's awareness of others increases in a corresponding fashion culminating with a broader systemic awareness in terms of service provision and existing gaps in service delivery. Finally the wider ethical implications are discussed in terms of the trainee's current stage of development and the impact on the trainee's future clinical practice as a qualified Clinical Psychologist.

Chapter 4: Advanced Clinical Practice II. Reflective Account (Abstract only).

Learning to train: A reflection on the tasks of clinical training and the role of Clinical Psychology in training others.

Abstract

This reflective account recounts the development of skills in the delivery of training to other professionals. The Integrated Developmental Model (Stoltenberg, 1998) is used to conceptualize the development of these skills over the course of clinical training. According to this model individuals progress through three stages of skill development across three core areas of self and other awareness; motivation and dependency-autonomy. The second model utilized within this account is Atkins and Murphy's Model of Reflection (1994). This model delineates three stages of reflection, these are; awareness of feelings of discomfort, analysis of the situation and a new understanding of events. This second model is used to structure case examples across the stages of development suggested by Stoltenberg's (1998) developmental model.

This account discusses and reflects upon the trainee's developing skills in the design and delivery of training to other professional groups, and how over time the trainee's understanding of the role of psychology in providing training to others has changed over time.

Appendices.

Appendix 1. Systematic Review.

Appendix 1.1 Search Strategy

Database	Limits	Search terms used	No of papers generated
Ovid (medline and embase classic plus embase)	Human English	((eating disorder) OR (binge*)) AND ((TA) OR (therapeutic relationship) OR (working alliance))	72
CINAHL (CINAHL plus and PsycINFO)	Human	((eating disorder) OR (binge*)) AND ((TA) OR (therapeutic relationship) OR (working alliance))	207 (remove books = 146)
Cochrane (Cochrane register of controlled trials)	None	((eating disorder) OR (binge*)) AND ((TA) OR (therapeutic relationship) OR (working alliance))	17
Web of Science	Topic search English	((eating disorder) OR (binge*)) AND ((TA) OR (therapeutic relationship) OR (working alliance))	128

Appendix 1.2 – Quality Rating Scale

Trial design area	Item
Sample Two questions: maximum score =10	Q1: Is the sample a convenience sample (score 2) or a geographic sample (score 5) or highly selective sample, e.g. volunteers (score 0)
	Q2: Is the sample size greater than 27 participants in each treatment group (score 5) or based on described and adequate power calculations (score 5)
Allocation Three questions: maximum score = 16	Q3: Is there true random allocation or minimisation allocation to treatment groups (if yes score 10)
	Q4: Is the process of randomisation described (score 3)
	Q5: is the process of randomisation carried out independently from the trial research team (score 3)
Assessment (for the main outcome) Five questions: maximum score = 32	Q6: Are the assessments carried out by independent assessors and not therapists (score 10)
	Q7: Are standardised assessments used to measure symptoms in a standard way (score 6) idiosyncratic assessments of symptoms (score 3)
	Q8: Are assessments carried out blind (masked) to treatment group allocation (score 10)
	Q9: Are the methods of rater blinding adequately described (score 3)
	Q10: Is rater blinding verified (score 3)
Control groups One question: maximum score = 16	Q11: TAU is a control group (score 6) And/ or a control group that controls for non-specific effects or other established or credible treatment (score 10)
Analysis Two questions: maximum score = 15	Q12: The analysis is appropriate to the design and type of outcome measure (score 5)
	Q13: The analysis includes all those participants as randomised (sometimes referred to as an intention to treat analysis) (score 6) And adequate investigation and handling of drop-outs from assessment if the attrition rate exceeds 15% (score 4)
Active treatment Two questions: maximum score = 11	Q14: Was the treatment adequately described (score 3) and was a treatment protocol or manual used (score 3)
	Q15: Was adherence to the treatment protocol or treatment quality assessed (score 5)

Appendix 2. Major Research Project.

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Appendix 2.1 Publication Guidelines.

Manuscript Submission Guidelines

Journal of Health Psychologyhttp://www.uk.sagepub.com/journals/journals/Journal200899

Journal of Health Psychology is an international peer reviewed journal that aims to support and help shape research in health psychology from around the world. It provides a platform for traditional empirical analyses as well as more qualitative and/or critically oriented approaches. It also addresses the social contexts in which psychological and health processes are embedded.

1. Peer review policy

Journal of Health Psychology operates a strictly blinded peer review process in which the reviewer's name is withheld from the author and, the author's name from the reviewer. The reviewer may at their own discretion opt to reveal their name to the author in their review but our standard policy practice is for both identities to remain concealed.

2. Article types

The Editorial Board of the **Journal of Health Psychology** considers for publication:
(a) Reports of empirical studies likely to further our understanding of health psychology
(b) Critical reviews of the literature
(c) Theoretical contributions and commentaries
(d) Intervention studies
(e) Brief reports
(e) Signed editorials (about 1000 words) on significant issues.

Intervention studies
Publication guidelines for intervention studies are published in volume 15, number 1, pages 5-7.The journal normally publishes papers reporting intervention studies of up to 8,000 words allowing 500 words per table and figure.

Please consult the Editorial concerning "Publication Guidelines for Intervention Studies in the Journal of Health Psychology" by David F. Marks J Health Psychol January 2010 vol. 15 no. 1 5-7: http://hpq.sagepub.com/content/15/1/5.full.pdf+html The criteria for publication include the application of the CONSORT, TREND and PRISMA statements.

Brief reports
The Journal also publishes Brief Reports of up to 3,000 words. Brief Reports should include an abstract of 100 words, and may include a table or figure in lieu of 500 words of the 3,000-word maximum.

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Smith (blind copy).doc

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7. Acknowledgements

Any acknowledgements should appear first at the end of your article prior to your Declaration of Conflicting Interests (if applicable), any notes and your References.

All contributors who do not meet the criteria for authorship should be listed in an `Acknowledgements' section. Examples of those who might be acknowledged include a person who provided purely technical help, writing assistance, or a department chair who provided only general support. Authors should disclose whether they had any writing assistance and identify the entity that paid for this assistance.

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Appendix 2.2 Ethics Approval

WoSRES
West of Scotland Research Ethics Service

NHS
Greater Glasgow and Clyde

West of Scotland REC 5
Ground Floor - Tennent Building
Western Infirmary
38 Church Street
Glasgow
G11 6NT

Date 28 September 2012

Direct line 0141 211 2102
Fax 0141 211 1847
E-mail sharon.macgregor@ggc.scot.nhs.uk

Dr Sarah Wilson
Senior Lecturer in Health Psychology
University of Glasgow
Mental Health & Well Being
Gartnavel Royal Hospital
1055 Great Western Road
Glasgow
G12 0XH

Dear Dr Wilson

Study title: **The Role of Emotion Regulation and Coping Strategies in Binge Eating Disorder.**

IRAS project number: **112123**

REC reference: **12/WS/0211**

The Research Ethics Committee reviewed the above application at the meeting held on 19 September 2012. Thank you to Miss Wallace for attending to discuss the study.

Ethical opinion

To summarise the discussion with Miss Wallace and the Committee, the following points were raised:

It was noted in the Purpose of the study section of the Participant Information sheet that the first sentence states "difficult early experiences can lead to problems in dealing with emotions in adulthood." This seems to be the conclusion of the study.

Miss Wallace confirmed that the statement in the PIS has been taken from literature. It is known that there is a relationship between experiences and emotions but it is not clear what mechanism or role this takes.

There were also concerns that it is rather stark to label someone has having Binge Eating Disorder (BED).

Miss Wallace also advised that the patients will be aware of their BED label but may not be necessarily comfortable with this. This label is necessary as patients with BED follow different treatment patterns.

In page 2 of the Participant Information Sheet, a minor spelling error was noted in the last sentence and should be changed ("principle" to "principal").

The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.

Ethical review of research sites

NHS Sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

It is responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The documents reviewed and approved at the meeting were:

Document	*Version*	*Date*
Investigator CV		07 August 2012
Other: Student CV		07 August 2012
Other: University approval letter		22 May 2012
Participant Consent Form	4	07 August 2012
Participant Consent Form: Contact form	1	07 August 2012
Participant Information Sheet	3	03 August 2012
Protocol	9	09 August 2012
REC application		24 August 2012

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

12/WS/0211	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

SMacgregor

for
Dr Gregory Ofili
Chair

Enclosures: List of names and professions of members who were present at the meeting and those who submitted written comments
"After ethical review – guidance for researchers"

Copy to: Miss Sonia Wallace, Gartnavel Royal Hospital
Dr Erica Packard, NHS GGC Research and Development

Appendix 2.3. Research proposal

Abstract

Background

Obesity has reached epidemic proportions in the developed world and has implications for quality of life and demand on healthcare systems. Some individuals who are obese have difficulties with regulating emotion and use food as a way of managing negative emotions. Current treatment approaches for obesity appear to be effective in achieving short-term weight loss; but gains are not maintained long-term. Treatments for Binge Eating Disorder (BED) appear to be effective in reducing binges but do not consistently have a significant impact on body weight. Evidence suggests that current treatments lack effectiveness because they do not consider the impact of emotion regulation strategies in maintaining weight problems.

Aims

To investigate, from the perspective of the participant, the role of emotion regulation and coping in BED.

Methods

Participants will be adults seeking support for weight loss via the Greater and Glasgow and Clyde Weight Management Service (GGCWMS). The principal researcher will seek to recruit between 8 and 10 individuals categorized as obese. Approximately half of the sample will also meet criteria for BED.

A semi-structured interview will be carried out lasting approximately 1 hour. The study will take a comparative qualitative design employing Interpretive Phenomenological Analysis (IPA) for the analysis of interview transcripts.

Applications

It is hoped that this exploratory, comparative study will aid in increasing our understanding of the role of emotion regulation and coping strategies in the development and maintenance of BED. This would have clinical implications in terms of adapting existing, or devising new treatments that better meet the psychological need of this group. (See Appendix 1 for lay summary).

Introduction

Obesity.

Levels of obesity in the UK have reached epidemic proportions, with 1 in 4 adults now obese (Department of Health, 2011). Levels of obesity are higher in Scotland than in the remainder of the UK (Waumsley, 2011) placing a burden on the healthcare system. Obesity is defined as having excessive body fat that poses a health risk. Individuals with a Body Mass Index (BMI) of over 30 are classified as being obese. Changes within western society, such as, increased access to energy dense foods have in part, lead to increasing levels of obesity (WHO, 2012).

The Scottish Intercollegiate Guideline Network (SIGN) suggest that group or individual psychological treatment; evidence-based lifestyle and pharmacological interventions should be available for the management of obesity (SIGN, 2010). In a systematic review of 36 papers (N= 3495) Shaw, O'Rourke, Del Mar and Kenardy (2005) found Behavioural Therapy (BT) and Cognitive Behavioural Therapy (CBT) plus diet and exercise to be effective in producing weight loss. However, the authors note that research into the effectiveness of other forms of psychological interventions are less robust. The conclusion that BT and CBT are the most effective treatments could therefore be a product of the limitations arising from less rigorous research into other approaches to treatment.

Cooper et al., (2010) conducted a randomized controlled trial of a new CBT approach to obesity. They compared this to a BT condition and a guided self-help condition (GSH) and found that BT and CBT for obesity can be effective in producing weight loss. However, weight reduction was not maintained over the 3 year follow up period, with CBT fairing no better than BT. The authors suggest that this could be because CBT does not target the factors maintaining obesity. The BT and CBT conditions lasted for 44 weeks and the GSH condition only 24 and it could be that the treatment conditions are not therefore directly comparable. This was a relatively large trial (N= 150) however; all participants were female thus limiting the generalizability of findings. Further, participants were excluded if they had a psychiatric or medical co-morbidity. This may limit the application of these findings to clinical populations.

Eating Disorder not otherwise specified - Binge Eating Disorder (BED) (DSM IV criteria, APA, 1994)

SIGN (2010) suggest that 3% of the total population have BED, whilst 30% of individuals seeking support from weight management services have BED. The Diagnostic and Statistical Manual IV (APA, 1994) describes BED as: the repeated eating of a large amount of food within a 2 hour period; compared to other people in similar circumstances. These episodes are associated with a feeling of being out of control. DSM states that to meet criteria for BED binge episodes must coincide with three (or more) of the following:
1. Eating much more rapidly than normal
2. Eating until feeling uncomfortably full
3. Eating large amounts of food when not feeling physically hungry
4. Eating alone because of being embarrassed by how much one is eating
5. Feeling disgusted with oneself, depressed, or very guilty after overeating

Further criteria specify the experience of distress related to bingeing. Binges occurring, on average, at least 2 days a week for 6 months but not coinciding with regular use of compensatory strategies, such as purging and not occurring during the course of another eating disorder.

Psychological treatments for binge eating disorder
The National Institute for Clinical Excellence (NICE, 2004) recommends the following interventions for BED: 1. Evidence based self-help. 2. Self-help plus support 3. CBT. 4. Interpersonal Psychological Therapy (IPT) or Dialectical Behaviour Therapy (DBT). The inclusion of IPT and DBT implies a role of interpersonal difficulties in the development and maintenance of BED.

Buckroyd (2011) argues that intervention for BED may have to focus on maintaining factors such as low self-esteem, rather than on weight loss alone. CBT and IPT have been shown to result in reduced bingeing, but do not result in maintained weight loss (Wilson, Vitousek and Loeb 2000). Changing eating behaviours is difficult because they are entrenched and play a role in emotion regulation. Removing this method of coping without replacing it with another effective method leaves the individual vulnerable to the experience of negative affect (Buckroyd, 2011).

Attachment
Attachment theory posits that individuals learn to regulate emotion based on their early care giving experiences (Bowlby, 1969). In infancy we seek proximity to our primary caregivers to receive comfort and reduce distress. The caregiver's responses will influence the strategies the child employs in the future and will determine the child's attachment style in that relationship. A working model of this relationship is internalized and serves as a blueprint for future relationships. If a caregiver is responsive to the child's emotional state this will result in a secure attachment style and the child is able to self regulate emotion based on the internalization of this attachment relationship. Conversely, if the caregiver is not attuned to the child's emotional needs this can result in an insecure attachment style and poorer ability to self-sooth.

Research findings suggest that in adulthood, insecure attachment is linked to the use of ineffective or maladaptive strategies to regulate emotional distress (Fonagy, Leigh, Steele, Steele, H Kennedy, Mattoon, Target, and Gerber, 1996). Buckroyd (2011) explains that past experiences may result in vulnerability to obesity, due to the use of eating as a maladaptive emotion regulation strategy. Studies have shown early experiences of abuse or trauma may predispose individuals to psychopathology in the form of eating disorder (O'Kearney, 1996). These early traumatic experiences likely impact upon attachment style and may make it more likely that individuals will employ external strategies to regulate their emotional experience. For example, Mauder and Hunter (2001) tentatively suggest overeating resulting in obesity may be a means of "managing insecure attachment".

Distress Tolerance.
Studies have shown that there is a relationship between the experience of negative emotion and increased food consumption. Canettie, Bachar and Berry (2002) found that food consumption increases when negative emotion is experienced in normal and overweight people. Kozak and Fought (2011) suggest that inability to tolerate negative emotion is linked to overeating. Intolerance of distress leads to avoidance of aversive emotion, and where avoidance is not possible maladaptive coping strategies are employed to regulate emotion.

Emotion Regulation.
The affect regulation model of binge-eating suggests that binge-eating is negatively reinforced as it results in temporary reduced distress. Deaver, Miltenberger, Smyth, Meidinger and Crosby (2003) report findings in support of this model and found differences between individuals who reported binge- eating and a group of controls.

Corstorphine (2006) put forward the cognitive affect model of eating disorder. This model suggests that during childhood individuals learn that expression of some emotions is not tolerated by caregivers. Bingeing/ purging and restriction are used to prevent the experience of emotions; however, avoidance of emotion produces a secondary emotion. For example, the person experiences anger and then binges to distance themselves from this emotion, they then feel guilty because they were angry.

Leventhal's Self-Regulation Model of Illness (Leventhal, Diefenbach & Leventhal, 1992).
The Self – Regulation Model posits that external and internal stimuli lead to the production of a "multi-attribute representation" of illness and an emotional response. This leads to the implementation of coping procedures, the outcome of which is then appraised. The representation developed is influenced by the person's identity and personality, and their social context. The illness representation influences the coping methods selected, the success of which will be appraised. The individual will select the coping method which they perceive to be appropriate based on their representation.

Leventhal's model can be applied to medical and mental health disorders; its application to BED may therefore be two- fold. Individuals may develop an illness representation relating to their diagnosis of BED. This might influence their selected coping mechanisms and their consequent appraisal will be influenced by their prior knowledge, experiences and sense of self. This model can be related to Fairburn's (2003) model of eating disorder, which posits that core low self-esteem, beliefs and experiences influence eating behaviours and strategies for coping with perceived failure. Leventhal's model relates to BED in a second way, in that a product of BED may be obesity. Obesity is a significant health concern (WHO, 2012) and the individual's representation of obesity will influence their methods of coping with it.

Summary.
Overall, the literature suggests that maladaptive coping plays a role in the development and maintenance of eating difficulties. The evidence also suggests that in eating disorder maladaptive coping occurs in the context of poor ability to self regulate emotions. Difficulty in tolerating negative emotions and in self- regulating distress is linked to early attachment experiences. These factors influence our perceptions and ultimately play a role in determining how we respond to diagnosis and intervention. It may therefore be the case that poor emotion regulation and coping directly maintain eating difficulties, but also indirectly effect weight loss outcomes in terms of engagement in treatment. This may at least partially explain why psychological treatments for obesity and BED do not appear to produce long lasting weight loss.

Qualitative research in the area.
Research often quantitatively investigates the relationships between attachment, emotion regulation and eating; few, however, have explored this from the individual's perspective, thus allowing researchers to gain a more in depth understanding of the mechanisms maintaining BED (Bidgood and Buckroyd, 2005). Fox (2009) argues that psychological models of the relationship between emotion and the symptoms of eating disorder do not allow us to consider the actual emotions playing a role in eating disorder or the beliefs and interpretations associated with these emotions.

Jeppson, Richards, Hardman and Granley (2003) explored the nature and functions of the binge-purge cycle in Bulimia. They interviewed eight females with a diagnosis of Bulimia and employed emergent data analysis. They argued that previous studies in the area had been limited by the use of quantitative methodology, and aimed to consider the possible therapeutic properties of the binge-purge cycle. Participants reported feeling comforted, soothed and nurtured during bingeing and that these feelings filled an emotional void. Bingeing was also used as a method of escape from thoughts and feelings. Some reported experiencing a high as a result of bingeing. Their analysis revealed a number of key themes including; the use of binge-purge to cope and increase control, to improve self-regard and social status, to regulate emotional experience and finally, to provide physiological reinforcement.

Aims / Objectives
The literature suggests that developmental experiences, resulting in insecure attachment, can lead to poor emotion regulation and maladaptive coping, which may result in weight gain; but little is understood about the mechanisms involved in this process. Furthermore, it is unclear if there are differences between obese individuals with BED and those without. Therefore, it is the aim of this study to qualitatively explore the mechanisms involved in BED from the perspective of the individual and to consider differences and similarities in the accounts of obese individuals with and without BED.

Plan of Investigation

Participants

Two groups will be recruited with 4-5 participants in each group. All will be individuals classified as obese and currently seeking support for weight loss via the Greater Glasgow and Clyde Weight Management Service (GGCWMS). One group will consist of individuals who also meet criteria for BED.

Inclusion Criteria.

1. Classified as obese
2. Seeking support from GCWMS
3. Aged 18+ (no upper age limit)

Exclusion Criteria.

1. English is not fluent. Due financial constraints limiting access to interpreting services and translation service.
2. Unable to give informed consent. Due to the qualitative nature of the research.
3. Previous intervention for weight management via the NHS. This exclusion criterion will be applied in order to ensure that treatment has not resulted in changes in participant's narratives of their experiences.

Research and Recruitment Procedures

Individuals referred to the GGCWMS are screened for disordered eating, including disorders such as bulimia and BED, or sub threshold disordered eating. If disorder eating is suspected, the individual is referred for psychological assessment. Within this assessment clinical interview and assessment using the Questionnaire on Eating and Weight Patterns revised will allow identification of individuals who meet DSM IV (APA, 1994) criteria for BED. Individuals meeting criteria for BED can be identified as part of routine clinical practice by the direct care team via this assessment process.

Information regarding the research study will be provided at the time of assessment by a member of the direct care team. Interested parties will be asked to consent to the researcher contacting them via telephone to discuss the research and any questions they may have regarding participation. Parties who wish to take part will then be asked to attend the GCWMS base to provide informed consent (in writing) and to participate in an interview. Potential participants will be given at least 24 hours to review the information sheet prior to being contacted regarding the study. Potential Participants will have the opportunity to speak to the member of the research team or to an independent contact about participation, if they choose.

In line with recommendations from the relevant literature (See Smith et al., 2009) 4-5 participants from the DEG and 4-5 from the standard group will be recruited to this study.

Interview Schedule

A semi-structured interview (see appendix 2 for draft) will be devised based on the relevant literature regarding attachment, emotion regulation and obesity (for example; SIGN, 2010; Shaw et al., 2005; Buckroyd, 2011; Bowlby, 1969; Fonagy et al, 1996; Corstophine, 2006). Interviews will be conducted by the principal researcher within a private interview room at a GGCWMS team base. The initial two interviews for each group will be conducted as a pilot in order to ensure that the questions generate relevant information and to ensure they are acceptable to participants.

Design

This study will take a comparative qualitative design investigating themes between and within groups (comparing themes between and within groups of obese individuals with and without BED).

Research Procedures

In-depth semi-structured interviews (lasting approximately one hour) will be carried out and digitally recorded by the principal researcher. Interview recordings will then be transferred to an encrypted University of Glasgow laptop. Interviews will then be deleted from the digital recording device. Interviews will then be transcribed verbatim with information identifying persons and place removed to ensure confidentiality. Numerical codes will be assigned to protect participant's anonymity. Once transcribed, and transcripts checked for completeness and accuracy, interview recordings will be deleted. Anonymised paper records relating to the study will be securely held at the University of Glasgow. Anonymised electronic information will be stored on the encrypted university Laptop for the duration of the study. Following completion of the study anonymised data will be securely transferred to the NHS network (password protected) and will be deleted from the university laptop.

Data Analysis

Comparative Qualitative Research.

Carrying out comparisons between groups is a method frequently employed in quantitative research; this method is perhaps used less frequently in qualitative research. Yet, in attempting to understand the mechanisms underlying the development and maintenance of BED it would be useful to consider the similarities and differences between individuals who have different routes to obesity. A variety of studies have employed this method (Arole, Premkumar, Arole, Maury and Sanderson (2002); Rice, Zwarenstein, Gotlib Conn, Kenaszchuk, Russell and Reeves (2010); Day (2008)). Elliot et al., (1999) suggests that investigating a phenomenon from more than one point of view allows for the development of a detailed multidimensional account of the phenomena under investigation.

Interpretative Phenomenological Analysis (IPA).

IPA is concerned with the lived experience and our perceptions of our own reality (Langdridge, 2002). IPA is inductive, that is, it does not set out to test a hypothesis (Reid, Flowers and Larkin 2005). Jonathan Smith developed IPA and describes this as a method of unpicking meaning from data through a process of interpretation (Smith, 1997). IPA allows the researcher to gain insight from the experts, that is, from individuals who have experienced the phenomena under investigation (Reid et al., 2005). Langdridge (2002) suggests that in order to carry out this type of analysis that we must attempt to put aside our own assumptions and beliefs in order to review data with fresh eyes, however, Elliot et al., (1999) state that it is impossible to truly ignore our own preconceptions. In interpreting the data researchers should reflect on their own role in the process i.e. in the interview and in the interpretation (Reid et al., 2005).

Interview transcripts will be analysed using IPA following the following steps (Langdridge, 2002):
1. Reading for Meaning.
2. Identifying Themes.
3. Structuring Theme.
4. Producing a summary table.
5. Integrating cases.

To ensure reliability of the themes identified by the principal researcher, the academic supervisor, experienced in qualitative methods, will carry out a blind second analysis of a subset of the transcripts.

Justification of sample size

Hefferon and Gil- Rodriguez (2011) argue that having more participants does not necessarily equal better quality research. In fact the inclusion of fewer participants may allow for more in depth analysis, moving beyond simple description of the data. Smith et al., (2009) suggest between 4 and 10 participants for a study undertaken as part as a professional doctorate.

Settings and Equipment

Participant information packs will be distributed via post or at initial assessment. All interviews will take place within the GGCWMS base in a private interview room. Interviews will be recorded using a digital voice recorder.

Health and Safety Issues (see appendix 3 for health and safety forms)

Researcher Safety Issues

Interviews will take place at NHS sites where other staff members are working and will take place during normal working hours (between 9 and 5pm). GGCWMS administrative staff will be given a timetable of interviews in order that they are aware of the principal researcher's movements. Normal health and safety procedures will be adhered to.

Participant safety issues

No participant will be coerced to take part in this study. The potential risks and benefits of participation shall be discussed with all potential participants, and potential participants will be given the opportunity to ask the principal researcher questions. The limits of confidentiality will be fully explained to participants, that is, any disclosure is made to the principal researcher that raises concerns for the safety of the patient or another person that confidentiality will be broken and NHS protocols followed. If a need for further medical or psychological intervention is identified this would be discussed with the participant and Clinical Supervisor.

Ethical Issues

Participants will be free to choose to participate or not, in this study. Participants will also be free to withdraw from the study at any point. Participation (or non-participation) in this study will not affect access to treatment.

Written information regarding this study will be given to and discussed with potential participants, prior to verbal and written informed consent being sought.

Data will be handled and stored in line with NHS policy and guidelines. Interview recordings will be stored securely on NHS premises and will be destroyed following transcription. Identifiable information will not be included in interview transcripts in order to protect the anonymity of participants.

Ethical approval will be sought from the NHS research ethics committee and the research and development committee. Approval to carry out the study will also be sought from the Lead Clinicians of the GGCWMS.

Financial Issues (see appendix 4 for research cost forms).
The main costs to be incurred throughout this study relate to postage costs including posting information packs (postage- £22.50 and envelopes - £5.21). Further costs relate to preparation of participant information packs and consent forms (and copies of these) and the cost of printing transcripts for coding (paper -£6.32 and printing- £17.92)

Timetable
An estimated timetable of research activity is provided below:
Submission of final proposal: April 2012
Marking of proposal: April/ May 2012
Submission to ethics: August 2012
Begin recruitment: October 2012 onward
Analysis: Transcription will be carried out throughout. Main analysis January – March 2013
Write up: March – May 2013
Submit final write up: July 2013
Viva: September 2013

Practical Applications
Research evidence and clinical experience show us that obese individuals are not a homogeneous population. It follows that they may not respond comparatively to the same intervention for weight management. Whilst a great deal has been written about the role of attachment in the development and maintenance of eating disorder less is known about the mechanisms underlying this relationship.

BT and CBT have been shown to be effective in producing weight loss in obese individuals; however gains are often not maintained long term. For those with BED CBT and IPT are not universally effective in producing weight loss although appearing to reduce frequency of binges. This research may provide a vehicle through which treatment resistant BED can be tackled by improving our understanding of the mechanisms that maintain it. This may allow for the development of alternative approaches to the treatment of BED, which focus on the factors that led to its development.

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Appendix 2.4 Participant Information Sheet

"The role of emotion regulation and coping strategies in Binge Eating Disorder"

We would like to invite you to take part in a research study. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Talk to others about the study if you wish. Ask us if there is anything that is not clear or if you would like more information.

Key Contacts:

Sonia Wallace and **Dr Sarah Wilson.** University of Glasgow, Institute of Mental Health and Wellbeing, Admin. Building, Gartnavel Royal Hospital, 1055 Great Western Road. G12 0XH. 0141 211 3920

Dr Ross Shearer. Glasgow and Clyde Weight Management Service, Mansionhouse Unit, Mansionhouse road, G41 3DX. 0141 201 6115

Who is conducting the research?

The research is being conducted by Sonia Wallace and Dr Sarah Wilson from the Institute of Mental Health and Wellbeing, Glasgow University alongside Dr Ross Shearer and Dr Susan Boyle from the Glasgow & Clyde Weight Management Service, NHS. This research is being undertaken in part fulfillment of a Doctorate in Clinical Psychology.

What is the purpose of the study?

Difficult early experiences can lead to problems in dealing with emotions in adulthood. This can mean that people rely on less helpful ways of coping with how they are feeling. For example some people may 'comfort' eat, resulting in weight gain. Whilst we know that some people might have difficulty in coping with how they are feeling, we don't know much about the reasons why this is the case. Furthermore, it is unclear if there are differences between obese individuals with Binge Eating Disorder and those who do not have an eating disorder. Therefore, it is the aim of this study to explore the mechanisms involved in Binge Eating Disorder from the perspective of the individual and to consider differences and similarities in the accounts of obese individuals with and without Binge Eating Disorder.

Why have I been invited?

You have been invited to take part in this study as you have sought support from the Glasgow and Clyde Weight Management Service. We are hoping to recruit people who are seeking support for general help with weight loss and those who meet criteria for Binge Eating Disorder.

Do I have to take part?

It is up to you to decide. We will describe the study and go through this information sheet, which we will then give to you. You will be asked to sign a consent form to show you have agreed to take part. You are free to withdraw at any time, without giving reason. This would not affect the standard of care you receive or your future treatment.

What does taking part involve?

You would be asked to meet with the PI for around 60-90 minutes at Mansionhouse Unit, in order to participate in an interview about how you cope with emotions. If you would prefer not to answer any questions put to you, you would be free to decline. The interview would be recorded using a digital voice recorder with your consent. The recording would be securely stored and would be used only for the purposes of the research. It would be destroyed following transcription. All identifying information would be removed from the transcribed interview to keep your information confidential. Anonymous quotes from your interview may be used within the research reports.

During the interview if you made a disclosure suggesting that you or others are at risk, it may be necessary to break confidentiality in order to ensure your safety or the safety of others. If it was felt you required further medical or psychological input, this would be discussed with you, and you would be signposted to an appropriate service and your GP contacted.

What happens to the information?

Your identity and personal information will be completely confidential and known only to the researchers. The information obtained will remain confidential and stored within a locked filing cabinet. The data are held in accordance with the Data Protection Act, which means that we keep it safely and cannot reveal it to other people, without your permission

What are the possible benefits of taking part?

It is hoped that by taking part in this research, you will be providing valuable information regarding your experiences of coping with obesity. It is hoped that gathering information about these experiences from you and others sharing the same problems will aid in improving understanding of the factors that lead to and maintain Binge Eating Disorder.

There are no direct risks involved in taking part in this study however, some people may find it difficult to talk about their experiences.

Who has reviewed the study?

This study has been reviewed by the West of Scotland Research Ethics Committee.

If you have any further questions?

We will give you a copy of the information sheet and signed consent form to keep. If you would like more information about the study and wish to speak to someone **not** closely linked to the study, please contact **Dr Alison Jackson**, University of Glasgow, Institute of Mental Health and Wellbeing, Admin. Building, Gartnavel Royal Hospital, 1055 Great Western Road. G12 0XH. 0141

If you have a complaint about any aspect of the study?

If you are unhappy about any aspect of the study and wish to make a complaint, please contact the researcher in the first instance but the normal NHS complaint mechanisms are also available to you.

Thank-you for your time and co-operation

Appendix 2.5. Consent to be contacted form.

"The role of emotion regulation and coping strategies in Binge Eating Disorder"

Consent to contact form

Please Initial Boxes

I agree to be contacted by Sonia Wallace (principal researcher) regarding the above named research. ☐

If you are happy to be contacted regarding this study would you please provide contact details below.

Telephone:

Home:……

Mobile:……

Address:……
……
……

Name of participant: Signature of participant:

- - - -

Appendix 2.6. Consent Form

"The role of emotion regulation and coping strategies in Binge Eating Disorder"

Consent Form

Please Initial Boxes

I confirm that I have read and understand the information sheet dated 7.8.2012 (version 4) for the above study and have had the opportunity to ask questions ☐

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical or psychological treatment within the Weight Management Service being affected. ☐

I understand that sections of my medical notes may be looked at by the research team where it is relevant to my taking part in the research, and I agree to the researcher accessing these records. Authorised representatives of the sponsor, NHS Greater Glasgow and Clyde, will have access only for the purposes of audit. ☐

I agree to my interview being recorded. ☐

I am aware and understand that the researcher, Sonia Wallace, may publish direct quotations from my interview, but that these will be anonymised. ☐

I agree to take part in the above study ☐

Name of participant: Signature of participant:

- - - -

Appendix 2.7. Interview schedule.

Binge eating - processes.
Q. Can you start of by telling me about the difficulties you've had that have brought you into contact with this service?

- How do you feel during this?/ Following this?
- What sorts of things might lead to this?
- How else do you cope when you feel like this?
- What do you think about this way of coping?
- Is this how you have always coped?
- What have you tried to manage this in the past?
- Why do you think past attempts have not been successful?
- What has been the impact of past failures?
- What does this mean for you?

Development of binge eating.
Q. What do you think contributed to the development of this difficulty?

- How do you think other people cope with things?
- Do you know anyone else who does this?
- What did that experience mean for you?
- How has that impacted on you as a person?

Family factors.
Q. Can you tell me about what life was like for you when you were growing up?

- Who was at home?
- Can you describe your relationship with…?
- Can you give me an example of...?
- Who would you turn to when you were upset?
- How would you let others know how you were feeling?
- How did your family deal with emotions?
- What do you think about that?
- Can you describe an average family mealtime?
- What relationship with food did your family members have?
- How did family members talk about food and weight?
- Were there other important people in your life then?

Relationships
Q. Can you tell me a bit about the important people in your life now?

- How would you describe your relationship with..
- Can you give me an example of that?
- How does your way of coping compare with things?

Treatment
Q. What do you think treatment needs to focus on?

- What would be different for you if you didn't have this problem?
- What would need to change?

Appendix 2.8. IPA steps

1. Reading for Meaning.

2. Identifying Themes.

3. Structuring Themes.

4. Producing a summary table.

5. Integrating cases.

Appendix 2.9. Sample Interview transcript.

I/P*	Interview content	Researcher notes
I	I wonder if you can start of by telling me a wee bit about the difficulties that you've had that have brought you into contact with the service?	
P	Em food {laughs} I always just loved food from teenager, from moving out of home em I just liked food em and it just seems to rule my life really in a way sort of I wake up in the morning and I'll be thinking about what lovely things I can eat for my dinner and but I don't eat all day, I just eat one meal a day so I just think all day about what I'm going to eat for my dinner em and it has to be something really fatty and creamy because it's like it's a bit like a release you know what I mean when I eat I feel relieved so I just have that so my portions are big because obviously I like what I'm cooking and it's lead to me putting on a lot of weight over the years and I do diet and I'm successfully on weight watchers or whatever I can stick to what I'm told to do and as soon as I come off weight watchers I go back to exactly thinking ugh six months I've denied myself foods that I like and I put on more than I've lost so I'm up and down but now I've got two little children [name] has just started primary and has become aware like her friends you know what children are like they're like they just say what they see, and they'll say why is your mum really fat and my mum's really skinny and they just say it how it is and it's made me think yeah I don't want [daughter] going through school with a fat mum and the way she is she's very active and I just want to change my life so that I can be confident for her (mm hmm) and all my life I've had problems with the way I look and everything but for her I'm not going to let her be like me in years so that's why I've asked, I've sought help and I've been to the doctor and said right what can you do to help me with this and that's what brought me here and I think this is the best place for me to be because I just can't do anything about food on my own if you know what I mean	Enjoyment of food Please Preoccupation with type of food Foods Difficulty maintaining weight- Weight management Transgenerational issues Self view Life cycle issues
I	So you said there that em you've always liked food, when do you think difficulties with food started? You said when you moved out –	
P	Yeah my mum em when I was speaking to the other lady at the assessment she wasn't, she sort of denied us food if you know what I mean and food in our house in our house was basically left overs my step dad was a [job] and he also had [job] and we got fed leftover food and not much of it and she would sit and eat Indian curries and we would smell it but we would be given mouldy burgers and things to eat so when I moved out of home and I was responsible for my own food shopping and cooking that's when I discovered food and I loved it so I bought so literally since I've been 17 I've started eating because it was it was like woah what is this this is food, this is nice and I've never been about to stop. It sounds ridiculous doesn't it? I should have been able to stop but I haven't been able to {laughs}	Experiences of caregivers Life transition Calls self ridiculous ? self view
I	So it's sounds as if it was a very new experience for you to have control (oh god it was amazing) what would you would have –	
P	I can't believe I'm sat here, it was amazing but now it was a discovery	
I	Ok so it sounds as though at that time that was positive? (Yeah) when did that change?	
P	Eh when I moved in with my now husband so what was that 13 years ago and he obviously didn't eat like me. He's not bothered about food at all he's just skinny he eats what he likes but he likes nice food but not a lot of it and he likes it so he generally he eats quite a normal diet and I didn't and that's	

	when it all started to become a problem because he would note to me oh you're eating far too much for a woman and wee things like that would highlight it to me so I became secretive about things that I eat and tried to change to fit in with him (ok) and that's when the problems kind of started and just built up because when I'm in the house because he's out all day and I'm in with the children so you can see and I don't work so you can see how I cannot eat all day and nobody cares it doesn't matter and then at night time I'll look like I've eaten a normally dinner but I'll have eaten a dinner before he comes in or something like that so that's when it started to become an issue (ok)	Impact of relationship on eating difficulties-interpersonal stress Life situation This seems like a strong comment – does it reflect self beliefs/ views Eating behaviours
I	So can you tell me a wee bit more about, you said that's when the problem started but what would the problem entail as such?	
P	Sorry have I been really waffle {laughs} (no no not at all) the problem would be that I would obsess about food and see it as and I would say that I see food as a comfort (mm hmm) and something to be enjoyed and make me feel good and the more of it the better you feel and my husband sees it as fuel and I don't understand why you would just see food as fuel because that's ridiculous you know people spend hundreds of pounds on food why would spend that much money just for fuel so that became an issue and we started arguing about it and he became concerned about it and so I hid it so I ate more because I was trying to stuff stuff in when he wasn't watching and I had a job at that time and I would say my weight started to get heavy and then obviously I lost confidence because I was getting heavy and it was just everything I was just obsessed about when I was going to start eating and how I was going to fit my eating in around people not knowing what I was eating (mmhmm) and it just so that's the problem to lead a normal life when your thinking of wear am I going to stash my food and how am I, I mean at work I would go to the toilet and eat (ok) because I wouldn't want my colleagues to see what I was eating and then the weight became a big issue and the weight has just been an issue ever since and now I just don't like what I look like in clothes and so that it's all sort of spiralled so that's the main secrecy and feeling bad about what you do (ok)	Preoccupation Food as comforting and eliciting positive emotions – affect mgt Interpersonal issues and impact on eating-Interpersonal Confidence – self view Preoccupation with food Self image Eating behaviours-unintended consequences
I	So can I ask you a bit more about secrecy? (mm) You said one of the reasons why it became a secret it because you had to take yourself away from your colleagues because you didn't want them to see you I suppose what would have meant for them to have seen you eating?	
P	Well I eat too much and they would just be disgusted at me and I just have visions of them all talking about me well that's why she's fat because she eats so much and you know it's society isn't it. Society says you're supposed to have a sandwich and piece of fruit and a drink of water and I'd be sitting there thinking right I'm going to go over to Gregg's and get a steak bake and one of those really nice sandwiches with and I remember the sandwiches I used to eat they were the tastiest things and full of mayo and so I would go and sit without them or just say oh I've got to pop to the shop and I'd even sit round bins behind the bins and eat because I'm eating so much I just wouldn't want them to think badly of me for eating the amount of food that I ate and no one would have understood why I really and it was a release it made me feel better yeah but I'm not going to tell someone at work or eating all this food that you frown upon makes me feel better because they'd just think I was weird so that's why because they would just think that it was horrendous.	Negative self views turned outwards? Societal influence-systemic factors Preoccupation The perceptions of others – self views Food as a release and eliciting positive emotions – mgt affect The perceptions of others – self view

*I= Interviewer
P= participant